



U.S. Department of Energy
Idaho Operations Office

FY 2013 INL Site Sustainability Plan with the FY 2012 Annual Report

December 2012



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DOE/ID-11383
Revision 4

FY 2013 INL Site Sustainability Plan with the FY 2012 Annual Report

December 2012

**Prepared for the
U.S. Department of Energy
DOE Idaho Operations Office**

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Approved by



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Manager
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12/5/12

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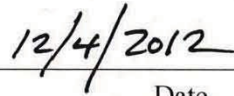
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Approved by



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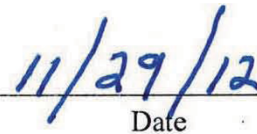
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Approved by



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EXECUTIVE SUMMARY

Clean energy and sustainability have long been at the core of the mission of the U.S. Department of Energy (DOE) and are reinforced in Executive Order (EO) 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, and Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*. DOE has articulated its key strategies and goals in its 2012 Strategic Sustainability Performance Plan (SSPP). The Idaho National Laboratory (INL) Site incorporates these strategies through this plan.

DOE Order 436.1, *Departmental Sustainability*, provides requirements and assigns responsibilities for managing sustainability within DOE to ensure that missions are carried out in a sustainable manner, to institute wholesale cultural change to factor sustainability and greenhouse gas (GHG) reductions into all DOE decisions, and to ensure that DOE achieves the sustainability goals established in its SSPP. DOE Order 436.1 and the SSPP require that DOE sites commit appropriate personnel resources, establish a financing plan that prioritizes the use of lifecycle cost-effective private sector financing and optimizes the application of appropriations and budgeted funds, and establish specific performance measures and deliverables designed to achieve the listed requirements.

The “FY 2013 INL Site Sustainability Plan with the FY 2012 Annual Report,” hereafter referred to as the Plan, was developed according to the narrative requirements from the “Guidance for the FY 2012 DOE Site Sustainability Plans” issued on August 10, 2012. This Plan contains strategies and activities that will lead to continual GHG, energy, water, and transportation fuels efficiency to move the INL Site towards meeting the goals and requirements of the SSPP, EOs 13514 and 13423, and DOE Order 436.1 before the end of Fiscal Year (FY) 2020. The Plan summarizes energy and fuel use reporting requirements and references criteria for performing sustainable design. Plan requirements are integrated into each of the INL Site contractor’s Integrated Safety Management Systems (ISMS) and Environmental Management Systems (EMS). Finally, Sustainability Program directives based on this Plan are integrated into the INL Ten-Year Site Plan (TYSP) and operations and acquisition systems.

For the purposes of this document, the “INL Site” is considered all operating contractors and the Department of Energy Idaho Operations Office (DOE-ID), and includes the industrial complexes located west of Idaho Falls and the Idaho Falls buildings. INL is considered to be those facilities operated by Battelle Energy Alliance, LLC (BEA). The Advanced Mixed Waste Treatment Project (AMWTP) and Idaho Cleanup Project (ICP) are referred to by their noted acronyms and include all facilities under their individual responsibility.

This DOE-ID INL Site document serves as the overall INL Site Sustainability Plan. It is supplemented by individual contractor plans and strategies as needed. Updates to the Plan are anticipated annually with added specificity as projects are developed and requirements change. This Plan encompasses all contractors and activities at the INL Site under the control of DOE-ID. The operations and activities of the Naval Reactors Facility (NRF), located on the INL Site, are specifically excluded from this Plan.

The Environmental Management mission assumptions for this Plan include the cessation of AMWTP operations and AMWTP facilities achieving a cold, dark, and dry status by FY 2018.

The intent of this Plan is to provide the overall Sustainability strategy for the INL Site during FY 2013. Integral to this Plan is the FY 2012 Annual Report. The Annual Report data for FY 2012 are provided on the Consolidated Energy Data Report (CEDR) that is included as Appendix C.

DOE-ID and the INL Site contractors use their existing EMS to establish goals, track, and review progress towards meeting the energy and water efficiency, greenhouse gas reduction, and renewable energy goals. INL Site contractors will leverage all available sources of funding including Strategic Investment Funding (SIF) and alternative funding programs such as Energy Savings Performance

Contracts (ESPC) and Utility Energy Services Contracts (UESC) to implement energy and water reduction projects. Projects identified to date are included on the Conservation Measures worksheet of the CEDR. The INL Site will leverage utility incentive programs to the maximum extent available.

The INL Site spent nearly \$12.6M in FY 2012 for facility, process, and equipment energy. Of this total, \$11.9M was spent for building energy, \$1.06M was spent for process energy, and \$696K was spent on equipment fuel. The INL Site used over 858.2 billion Btu of energy and 859.0 million gallons of water. Transportation fuel use across the INL Site in FY 2012 totaled 1,001,042 gallons of various types of fuels. The fleet is composed of light-duty vehicles fueled by gasoline and E-85. Heavy-duty vehicles include over-the-road buses fueled by diesel and biodiesel, and a complex assortment of trucks and equipment. Typically, 9.5 million miles are driven annually and over 50,000 hours are logged on heavy equipment.

Tables ES-1 and ES-2 and Figure ES-1 summarize the Annual Report data and provide an FY 2012 status of the DOE SSPP goals. The FY 2012 goals in the graph are the trend point of where the INL Site should be after FY 2012 to remain on track to meet the overall goals by the end of FY 2020. Discussion of the FY 2012 status and planned FY 2013 actions are found in the body of this Plan.

Table ES-1. DOE Sustainability Performance Office (SPO) Key Milestones Status

SPO Goal	DOE Goal	FY 2012 Status
3a.	Reduce Scopes 1 and 2 Emissions by 1% (15% cumulative from FY 2008)	-20.3
3b.	Reduce Scope 3 Emissions by 1% (3% cumulative from FY 2008)	-7.3%
3c.	Reduce Energy Intensity by 21%	-13.8%
3d.	Meter 90% of the Site's Total Electricity	49%
3e.	Meter 25% of the Site's Total Natural Gas by 2015	100%
3f.	Assess 100% of Facilities for Energy and Water Measures	75%
3g.	Maintain 5% Renewable Energy as Percent of Facility Energy Use	9.9%
3h.	Reduce Water Use by 2% (10% cumulative from FY 2007)	-11.4%
3i.	Reduce Petroleum Use by 2% (14% cumulative from FY 2005)	-20.3%
3j.	Increase Alternative Fuel Use (61% cumulative from FY 2005)	154%
3k.	Reduce Fleet by 15%	35%
3l.	9% of Building Stock meets Federal Guiding Principles for HPSB	2%

Table ES-2. Sustainability Goals Discussion.

SSPP Goal	DOE Goal	Performance Status	Planned Actions and Contribution	Risk of Non-Attainment
1.1	28% Scope 1 & 2 GHG reduction by FY 2020 from a FY 2008 baseline	The INL Site combined Scope 1 & 2 GHG emissions are down 20.3% from the FY 2008 baseline.	GHG emission reductions will primarily be obtained through efforts to reduce building and transportation energy. AMWTP contract completion will contribute to further reductions toward the goal.	Medium

Table ES-2. (continued).

SSPP Goal	DOE Goal	Performance Status	Planned Actions and Contribution	Risk of Non-Attainment
1.2	13% Scope 3 GHG Reduction by FY 2020 from a FY 2008 baseline.	The INL Site combined Scope 3 GHG emissions are down 7.3% from the FY 2008 baseline.	The INL Site will reduce Scope 3 GHG emissions primarily through employee commute reduction tactics and employee travel reduction tactics.	Low
2.1	30% energy intensity reduction by FY 2015 from a FY 2003 baseline	The INL Site has reduced energy intensity 13.8% from the FY 2003 baseline intensity as demonstrated through data entered into the CEDR and compared to FY 2003 data.	<p>The INL Site short-range energy reduction strategies account for a 22% reduction in energy intensity by FY 2015. An 8% gap in electrical intensity reduction exists. To achieve the initial 22% reduction, capital project upgrades are planned primarily through alternative funding mechanisms that include ESPC and UESC. Closing this 8% energy reduction gap will require approximately \$42M–\$52M in energy efficiency projects.</p> <p>Finally, AMWTP contract completion will contribute to further reductions, helping make progress toward the goal.</p>	Medium
2.2	Individual buildings metering for 90% of electricity (by October 1, 2012); for 90% of steam, natural gas, and chilled water (by October 1, 2015).	<p>The INL Site meters 100% of its natural gas and 49% of its electric usage. An analysis was performed on all existing infrastructure that will still be in place in FY 2020. From this analysis, the INL FY 2011 Metering Plan (PLN-3911) was developed to provide a roadmap on how the INL Site will reach the goal of metering 90% of electricity.</p> <p>Metering was installed in FY 2012 on three facilities with the highest probability of meeting the Guiding Principles.</p>	<p>Meters will be installed over the next 2 years to be compliant with the 90% metering goal for Nuclear Energy (NE) facilities. The six remaining facilities identified as having the highest probability of meeting the Guiding Principles are targeted for meter installations in FY 2013.</p> <p>All other meters are planned for installation through ESPC projects. DOE Environmental Management (EM) may install meters on up to 12 INTEC buildings between FY 2013 and FY 2015 as funding is made available.</p>	<p>Low</p> <p>The INL Site did not meet the October 01, 2012 deadline, but will meet the 90% goal for NE buildings within 2 years.</p>

Table ES-2. (continued).

SSPP Goal	DOE Goal	Performance Status	Planned Actions and Contribution	Risk of Non-Attainment
2.3	Cool roofs, unless uneconomical, for roof replacements unless project already has CD-2 approval. New roofs must have thermal resistance of at least R-30.	The INL Site replaced 21,869 ft ² of roofing on four existing buildings with cool roofs using the Roof Asset Management Program (RAMP). Cool roofs were also installed on three new INL facilities. A total of 379,000 ft ² or 17% of DOE-NE owned and operating INL roof area now have cool roofs.	<p>INL roof replacements planned for FY 2013 with the RAMP program will result in new cool roofs exceeding 12,000 ft².</p> <p>Additionally, the new Research and Education Laboratory (REL) will be complete in FY 2013 and will include a cool roof on approximately 44,000 ft².</p> <p>AMWTP project completion does not involve installation of cool roofs.</p> <p>ICP contract extension includes narrative for possible cool roof evaluation at CPP-666, dependent upon funding priority</p>	Low
2.4	15% of existing buildings greater than 5,000 gross square feet (GSF) are compliant with the Guiding Principles of High Performance Sustainable Buildings (HPSB) by FY 2015	<p>The INL Site has 2% of existing facilities that are compliant with the Guiding Principles.</p> <p>Although the INL Site requires only 26 facilities to achieve the Guiding Principles (15% of the entire INL Site), INL identified 27 facilities with the highest probability of meeting the Guiding Principles. These facilities were entered into Portfolio Manager, are planned for meter installations, and are included in plans for energy and efficiency upgrades.</p> <p>Of these 27 facilities, two are currently Leadership in Energy and Environmental Design (LEEDTM) Gold certified, four are in construction and are awaiting LEEDTM Gold certification, and the balance are being worked for Guiding Principle implementation.</p>	<p>All enduring infrastructure at Central Facilities Area and the Advanced Test Reactor Complex (ATR), and low security facilities at the Specific Manufacturing Complex (SMC) were evaluated as part of developing INL ESPC Project 3. The five Guiding Principles are planned for implementation through the ESPC, although not at EM facilities.</p> <p>In FY 2013, assuming that funding is available, INL will implement projects in Idaho Falls (IF) Facilities including IF-616 (WCB), IF-654 (EROB), and IF-663 (Records Storage Facility) that will help these buildings obtain a passing Energy Star rating score and will be further evaluated using Portfolio Manager.</p> <p>INL is planning to certify IF-663 and IF-654 in FY 2013 as meeting the Guiding Principles using Portfolio Manager, an increase of 1%.</p> <p>Non- Attainment Issue:</p> <p>Full implementation of the Guiding Principles is highly dependent upon energy and water usages and securing an acceptable Energy Star</p>	<p>Medium</p> <p>See Non-Attainment Issue statement</p>

Table ES-2. (continued).

SSPP Goal	DOE Goal	Performance Status	Planned Actions and Contribution	Risk of Non-Attainment
			score. As the final buildings are metered, there may not be sufficient time to implement changes to improve the Energy Star score. The INL Site is responsible for obtaining Guiding Principle certification on 15% of the INL Site Buildings (26 total based on current enduring infrastructure numbers). AMWTP and ICP projects focus on completing the cleanup mission so most facilities have a limited operational term and only minimal planned investments. Upgrades to meet the guiding principles will be considered for maintenance projects or if major facility modifications are required to meet mission requirements. AMWTP and ICP facilities were removed from the ESPC Project 3 scope at EM HQ direction in FY 2011 due to uncertain operating terms and are not expected to contribute to this goal. INL had planned to obtain Guiding Principle certification on 16 buildings, which equates to 15% of the INL/NE controlled buildings. Although a new plan is in place to achieve Guiding Principle compliance on all 26, the remaining 10 facilities were added in FY 2012 to INL's total and may not reach Guiding Principle implementation until after FY 2015. Energy efficiency project funding, meter installation, and operating considerations may cause the new planned Guiding Principle implementation date to slip 1 or 2 years for the additional 10 buildings.	
2.5	All new construction, major renovations, and alternations of buildings greater than 5,000 GSF must comply	The INL Site ensures all new construction, major renovations, and alternations of buildings greater than 5,000 GSF comply with the Guiding Principles and where the work exceeds \$5M, are	INL's new Radiological Environmental Sciences Laboratory (IF-683) and Energy Systems Laboratory (IF-685) will be certified at LEED™ Gold in FY 2013 and the new Research and Education Laboratory (IF-688) is under construction and is expected	Low

Table ES-2. (continued).

SSPP Goal	DOE Goal	Performance Status	Planned Actions and Contribution	Risk of Non-Attainment
	with the Guiding Principles	LEED™ Gold certified or equivalent.	to be submitted for LEED™ Gold in FY 2014. The INL TYSP institutionalizes sustainability as a core driver during campus and building planning. AMWTP and ICP project completion requires minimal construction and do not certify temporary structures used for waste exhumation.	
2.6	7.5% of annual electricity consumption from renewable sources by FY 2013 and thereafter (5% FY 2010–FY 2012).	The INL Site produced no onsite renewable energy, and the electricity available for purchase is currently obtained from up to 60% renewable (including old hydro electric). The INL Site is meeting the goal by procuring 22,000 MWh of Renewable Energy Certificates (RECs) from the local Utility, Idaho Falls Power. This purchase represents 10% of the INL Site electric usage. This REC purchase supports further renewable energy development and is a premium purchase of new renewable power from the local supplier utility.	INL continues to evaluate Renewable Energy Generation capability as technology changes and will annually purchases RECs in amounts as outlined in the Energy Policy Act of 2005. AMWTP and ICP project completion do not involve installation of renewable energy systems. Non-Attainment Issue: Although technically feasible, low electric costs and long paybacks make renewable energy installation on the INL Site economically infeasible. ESPC Project 3 review of renewable energy installation (solar, and wind) resulted in 211 and 60 year return on investments for 50 kilowatt and 1 megawatt projects respectively. These projects may have provided up to a maximum of 2% onsite renewable energy generation. An INL estimate for a privately operated wind farm installed on INL property would require \$15M in supporting infrastructure for the project to be commercially viable. Onsite solar installation would require over \$35M, plus the cost of maintaining an owned solar generating facility.	Medium See Non-Attainment Issue statement

Table ES-2. (continued).

SSPP Goal	DOE Goal	Performance Status	Planned Actions and Contribution	Risk of Non-Attainment
3.1	10% annual increase in fleet alternative fuel consumption by FY 2015 relative to a FY 2005 baseline.	The INL Site has exceeded the FY 2015 goal by increasing alternative fuel 154% relative to FY 2005. In FY 2012, the INL Site used 194,429 gasoline gallon equivalents of alternative fuels.	The INL Site will continue to obtain alternative fuel vehicles in support of this goal. INL will optimize the fleet through bus and heavy truck replacements that are more efficient and operate on biodiesel. However, recent DOE-HQ and Government Services Administration (GSA) direction has placed an emphasis on hybrid vehicle purchases. Hybrid vehicles are not flex fuel capable, so future alternative fuel consumption may decrease.	Low
3.2	2% annual reduction in fleet petroleum consumption by FY 2012 relative to a FY 2005 baseline.	In FY 2012, the INL Site used 747,777 gasoline gallon equivalents of petroleum, a 20.3% reduction from FY 2005.	The INL Site will continue to obtain increasingly fuel-efficient light-duty vehicles, continue to use B20 and E-85 fuels, and research the feasibility of implementing alternative fuel for bus operations. EM mission completion will contribute to further reductions, helping exceed the goal.	Low
3.3	75% of light-duty vehicle purchases must consist of alternative fuel vehicles (AFVs) by FY 2020 and thereafter.	The INL Site acquired nine light-duty vehicles in FY 2012, all of which are flex-fuel (100%)	The INL Site will continue to replace the current fleet with AFVs as GSA allows. However, hybrid vehicles are not AFVs and DOE-HQ is mandating hybrid vehicles be purchased. This may greatly affect the percentage of vehicles acquired and the amount of alternative fuel used at INL.	Low Based on directives and vehicles available from GSA.
3.4	Reduce fleet inventory by 35% by FY 2013 relative to a FY 2005 baseline.	The INL Site has met the 35% reduction mandate 1 year early. AMWTP removed vehicles from the fleet by participating in the INL transportation program.	INL will further support this goal by eliminating 100 light-duty vehicles during FY 2013. EM progress toward mission completion at the AMWTP and INTEC facilities mission and progress will remove dozens of vehicles from the fleet inventory in the next five years. ICP forecasts a reduction in the heavy equipment rental fleet from FY 2012 levels.	Low

Table ES-2. (continued).

SSPP Goal	DOE Goal	Performance Status	Planned Actions and Contribution	Risk of Non-Attainment
4.1	26% water intensity reduction by FY 2020 from a FY 2007 baseline.	The INL Site has reduced water use intensity by 11.4% and total water pumped by 18.3% as compared to the FY 2007 baseline.	<p>The INL Site will continue to develop and install projects that conserve water, through ESPC project development at the ATR Complex and Central Facilities Area (CFA) and additional internally funded projects.</p> <p>EM mission progress, including completion of the AMWTP will contribute to further reductions in both water use and the building footprint.</p> <p>Non-Attainment Issue:</p> <p>Low-cost water and electricity result in long paybacks on water efficiency projects that make implementation economically infeasible. Due to significant fluctuations in water demand (reactor operations and environmental factors such as weather and wild land fires), the INL Site is unlikely to maintain the FY 2012 reductions and achieve this goal. Retrofits on existing industrial process, primarily at the ATR Complex, are estimated to cost between \$100K to nearly \$75M. The INL Site estimates a water intensity reduction of 10%–12% by FY 2020.</p>	<p>Medium</p> <p>See Non-Attainment Issue statement</p>
4.2	20% water consumption reduction of industrial, landscaping, and agricultural (ILA) water by FY 2020 from a FY 2010 baseline.	ILA water is not applicable to the INL Site. All water obtained by the INL Site is obtained from the Snake River Plain Aquifer and is potable. The INL Site does not have access to any non-potable water supplies.	NA.	Low

Table ES-2. (continued).

SSPP Goal	DOE Goal	Performance Status	Planned Actions and Contribution	Risk of Non-Attainment
5.1	Divert at least 50% of non-hazardous solid waste, excluding construction and demolition debris, by FY 2015.	The INL Site diverted 33% of its non-hazardous solid waste in FY 2012.	The INL Site will continue to evaluate potential outlets and the expansion of recyclable waste streams and to increase further the amount of wastes diverted from the landfill. Contracts for mowing will be evaluated and modified to incorporate recycle or mulching.	Medium
5.2	Divert at least 50% of construction and demolition (C&D) materials and debris by FY 2015.	The INL Site diverted 30% of its C&D materials in FY 2012.	The INL Site will work to incorporate additional materials into current C&D waste diversion process. However, limited market availability and significant funds needed to implement a C&D recycle program fully will ultimately drive the decision.	Medium
6.1	Procurements meet sustainability requirements and include sustainable acquisition clause (95% each year).	INL implemented a new automated tracking process in FY 2012 and preliminary numbers show that 100% of the construction and janitorial contracts contained the sustainable acquisition clause in the fourth quarter. For the entire Fiscal Year, 71% of the construction and janitorial contracts contained the sustainable acquisition clauses.	The INL Site is incorporating numerous changes to improve the Sustainable Acquisition Program including procedures, policies, and enhanced work processes that increase the visibility, availability, and use of sustainable products. Sustainable acquisition contract clauses, including reporting requirements, were incorporated into EM contracts in FY 2012.	Low
7.1	All data centers are metered to measure a monthly Power Utilization Effectiveness (PUE) (100% by FY 2015).	INL meters two Data Centers and is connected to the building control system. ICP does not yet meter either data center.	The data center definition was expanded in FY 2012, so ICP now has two data centers listed in the CEDR. Funding dependent, meters will be installed in the future.	Low

Table ES-2. (continued).

SSPP Goal	DOE Goal	Performance Status	Planned Actions and Contribution	Risk of Non-Attainment
7.2	Maximum annual weighted average PUE of 1.4 by FY 2015.	The INL High Performance Computing (HPC) data center PUE is 1.34. The Information Operations Research Center (IORC) data center PUE is 2.03.		Low
7.3	Electronic Stewardship – 100% of eligible PCs, laptops, and monitors with power management activity implemented and in use by FY 2012.	INL won the Federal Electronics Challenge (FEC) Silver award in FY 2012. Power management controls are in place on the majority of eligible computer systems. At INL, 100% of eligible PCs have power management controls. AMWTP has installed power management controls on eligible computers.	<p>The INL Site will continue to demonstrate commitment to electronic stewardship through compliant procurements and policy changes.</p> <p>INL will continue to support the FEC and work towards achieving the Gold Award.</p>	Low

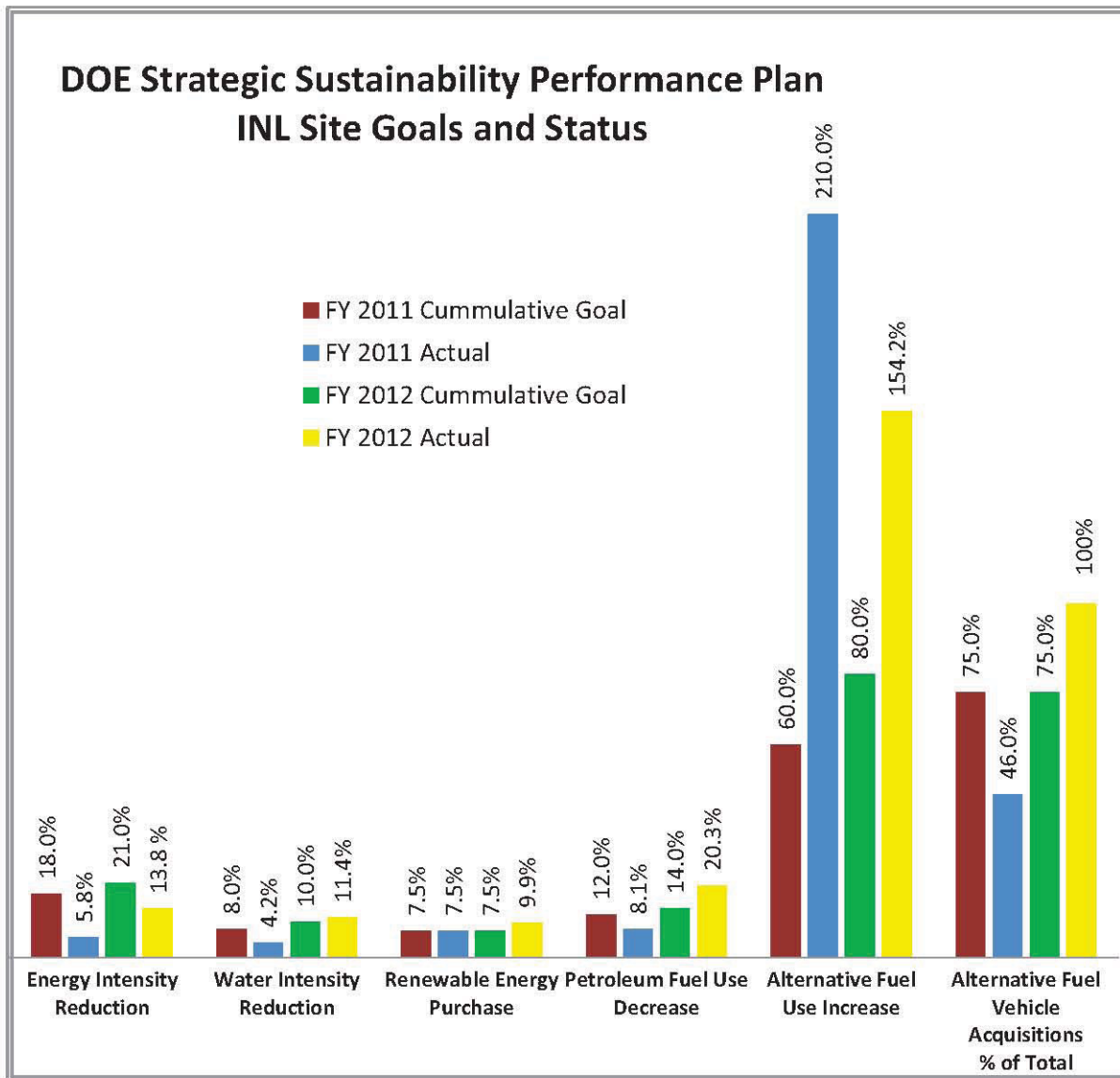


Figure ES-1. Current INL Site status to the DOE goals.

Figure ES-1 shows the INL Site cumulative goal and status for FY 2011 and FY 2012. The cumulative goals are based on individual baseline years as required in Executive Orders.

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ACRONYMS

AFV	Alternative Fuel Vehicle
AMWTP	Advanced Mixed Waste Treatment Project
ARRA	American Recovery and Reinvestment Act
ATR	Advanced Test Reactor
B20	Biodiesel
BEA	Battelle Energy Alliance, LLC
Btu	British thermal unit
C&D	Construction and Demolition
CAES	Center for Advanced Energy Studies
CD-2	Conceptual Design
CDP	Calcine Disposition Project
CEDR	Consolidated Energy Data Report
CFA	Central Facilities Area
CNG	Compressed Natural Gas
CRAC	Computer Room Air Condition
CUI	Controlled Unclassified Information
D&D	Decontamination and Dismantlement
DOE	Department of Energy
DOE-ID	Department of Energy Idaho Operations Office
E-85	Ethanol 85
EBR-I	Experimental Breeder Reactor 1
ECM	Energy Conservation Measure
EM	Environmental Management
EMS	Environmental Management System
EO	Executive Order
EPA	Environmental Protection Agency
EPEAT	Electronic Product Environmental Assessment Tool
EPSCoR	Experimental Program to Stimulate Competitive Research
EROB	Engineering Research Office Building
ES&H	Environment, Safety, and Health
ESCo	Energy Services Contractor
ESL	Energy Systems Laboratory
ESPC	Energy Savings Performance Contract

FAST	Fleet Automotive Statistical Tool
FEC	Federal Electronics Challenge
FEMP	Federal Energy Management Program
FIMS	Facilities Information Management System
FRAMES	Fire Research and Management Exchange System
FY	Fiscal Year
GHG	Greenhouse Gas
GPS	Global Positioning System
GSA	General Services Administration
gsf	Gross Square Feet
HEV	hybrid electric vehicle
HPC	High Performance Computing
HPSB	high performance and sustainable building
HQ	Headquarters
HVAC	Heating, Ventilating, and Air Conditioning
HWMA	Hazardous Waste Management Act
IAB	INL Administration Building
ICP	Idaho Cleanup Project
ILA	industrial, landscaping, and agricultural
IM	Information Management
INL	Idaho National Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
IORC	Information Operations and Research Center
IRC	INL Research Center
ISMS	Integrated Safety Management Systems
IT	Information Technology
IWTU	Integrated Waste Treatment Unit
LEED™	Leadership in Energy and Environmental Design
LNG	Liquefied Natural Gas
MFC	Materials and Fuels Complex
MIT	Massachusetts Institute of Technology
MT	Metric Tons
MWWI	Mountain West Water Institute
NE	Nuclear Energy
NKN	Northwest Knowledge Network

NNSA	National Nuclear Security Administration
NRF	Naval Reactors Facility
NSF	National Science Foundation
PDU	Process Demonstration Unit
PHEV	Plug-in Hybrid Electric Vehicle
PPTRS	Pollution Prevention Tracking and Reporting System
PUE	Power Utilization Effectiveness
R&D	Research and Development
RAMP	Roof Asset Management Program
RCRA	Resource Conservation and Recovery Act
REC	Renewable Energy Certificate
REL	Research and Education Laboratory
RESL	Radiological Environmental Sciences Laboratory
RFID	Radio Frequency Identification
ROB	Research Office Building
SDOP	Six Drum Overpack
SIF	Strategic Investment Funding
SMC	Specific Manufacturing Capability
SPO	Sustainability Performance Office
SSPP	Strategic Sustainability Performance Plan
TSA-RE	Transuranic Storage Area – Retrieval Enclosure
TSB	Technical Support Building
TTAF	Test Train Assembly Facility
TYSP	Ten-Year Site Plan
UESC	Utility Energy Services Contract
UPS	Uninterruptable Power Supply
USGBC	United States Green Building Council
UTV	Utility Terrain Vehicle
VM	Virtual Machine
WCB	Willow Creek Building

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FY 2013 INL Site Sustainability Plan with the FY 2012 Annual Report

1. GOAL PERFORMANCE REVIEW AND PLANS

For the purposes of this document, the “INL Site” is considered all operating contractors and the Department of Energy Idaho Operations Office (DOE-ID), and includes the industrial complexes located west of Idaho Falls and the Idaho Falls buildings. Idaho National Laboratory (INL) is considered to be those facilities operated by Battelle Energy Alliance, LLC (BEA). The Advanced Mixed Waste Treatment Project (AMWTP) and Idaho Cleanup Project (ICP) are referred to by their noted acronyms and include all facilities under their individual responsibility.

The DOE Environmental Management (EM) mission assumptions for this Plan include the cessation of AMWTP operations and AMWTP facilities achieving a cold, dark, and dry status by FY 2018.

1.1 Scopes 1 and 2 Greenhouse Gas Reduction

28% Scope 1 & 2 GHG reduction by FY 2020 from a FY 2008 baseline.

Executive Order (EO) 13514 mandates that agencies develop specific greenhouse gas (GHG) reduction targets. Department of Energy (DOE) has set a reduction target of 28% for Scope 1 and 2 GHGs. The EO sets FY 2008 as the baseline year against which reductions will be measured.

The INL Site reported Scope 1 and Scope 2 GHG emissions for the baseline year, FY 2008, and annually thereafter. Scope 1 and Scope 2 are defined as:

- Scope 1. Direct or INL Site-owned emissions that are produced onsite, such as stationary combustion (from fuel combustion), mobile combustion (from fleet vehicles), and fugitive emissions (from refrigerants, onsite landfills, and onsite wastewater treatment). These include emissions that may benefit another entity or contractor, but for which the INL Site controls or owns the associated process.
- Scope 2. Indirect or shared emissions produced by INL Site’s electricity, heat, and steam purchases. (Note that INL Site did not purchase heat or steam during FY 2009 through FY 2012.)

The INL Site contractors’ Environmental Management Systems (EMS) provide the framework and process for evaluating and monitoring Scopes 1, 2, and 3 GHG emissions and related reduction activities. On an annual basis, appropriate sustainability targets are developed and monitored through the EMS to support the overall reduction in GHG emissions.

The challenge is to minimize the impact of operations while increasing the growth of the INL Site, balanced with EM closure activities. INL is integrating environmental performance improvement in the areas that matter most to its stakeholders and the Laboratory, including minimizing the environmental footprint, taking a progressive approach to climate change, and championing energy conservation.

1.1.1 Performance Status

Based on data entered into the Consolidated Energy Data Report (CEDR) and as shown in Table 1, the INL Site has reduced Scopes 1 and 2 combined emissions by 20.3% in FY 2012 as compared to the FY 2008 baseline.

Table 1. INL Site Scopes 1 and 2 combined GHG calculation results for FY 2008 and FY 2012, and the FY 2020 goal.

Emission Type	FY 2008 Baseline (MT CO₂e)	FY 2012 Actual (MT CO₂e)	FY 2020 Reduction Goal (MT CO₂e)
Scopes 1 & 2 Combined	141,102.9	112,484.3	101,594.1

Many factors influence the INL Site's GHG emissions, including the large land area on which the Laboratory's facilities are located. The area requires long commutes and an extensive fleet to provide transportation for desert site workers, and contains many antiquated inefficient facilities built before the current appreciation for energy efficiency and high-performance design. These factors tie directly into the following conclusions from the INL Site's baseline GHG inventory:

- Electricity is the largest contributor to the INL Site's GHG inventory
- Other sources with high emissions were stationary combustion and fugitive emissions from the onsite landfill
- Among the sources with low emissions within Scopes 1 and 2 were fugitive emissions from refrigerants and onsite wastewater treatment.

1.1.2 Planned Actions

The INL Site will continue to implement projects that reduce electricity and fuel usage, reducing corresponding Scope 1 and Scope 2 emission reductions. ICP will continue its closure mission, discontinuing processes and making facilities inactive and cold, dark, and dry; or demolishing what is no longer needed. Knowing the target emission for each as found in the INL GHG Reduction Strategy helps prioritize and plan projects accordingly.

Mobile Combustion Reduction tactics include:

- Take advantage of mass transportation and shuttles
Significant petroleum reduction and associated GHG reduction could be realized by moving additional numbers of the AMWTP contract force away from the current vanpool system to the existing INL bus operation. A majority of the AMWTP work force could be absorbed into the current bus operations schedule (i.e., fill the empty seats on buses currently traveling to/from the Site).
- Add one additional Park and Ride location to further reduce employee commute and bus fleet fuel usage.
- Evaluate technology that will allow INL to operate the bus fleet on "mixed" fuel, which is a combination of compressed natural gas (CNG) and biodiesel. This may allow INL to reduce fuel usage by up to 30%.
- Eliminate trips by using tools such as video and Web conferencing for meetings.
The use of "Go to Meeting" and other similar Web conferencing tools are available and use is expanding at INL.
- Use alternative modes of transportation such as bicycles and low-speed vehicles as appropriate.
Low-speed vehicles are available and in use inside Site areas.

- **Right Size Fleet.**

INL will allocate the majority of equipment to the end user except for a small centralized fleet of approximately 100 pieces of equipment. In doing so, the custodian will be accountable for cost, acquisition, maintenance, and storage of the equipment. Fleet Management will maintain input on all equipment acquisitions. INL looks to increase the vehicle pool total with one new J-hook truck and two new beds during FY 2013 to enable the use of multiple bed types on one truck.

The Naval Reactors Facility (NRF) has chosen not to implement the park-n-ride concept; however, fuel used to transport NRF staff contributes to INL Site emissions, as INL is the owner and operator of the transportation system. INL will continue to optimize NRF bus routes and run times.

Fugitive emission reduction tactics include:

- Work with recycling coordinator to identify waste diversion opportunities, including increasing the types and quantities of items sent for recycling and implementing composting. These activities will assist with meeting the EO 13514 waste diversion goals.
- Investigate installing a gas collection system at the onsite landfill to use as an energy source.
- Electricity emission reduction tactics include continuing evaluation of onsite renewable energy projects for cost effective options as technology and energy prices change, although there are no plans or funding to install in the near term.
- Use the following tactics to reduce direct purchased electricity:
 - Satisfy sustainable acquisition requirements to purchase Energy Star and Federal Energy Management Program (FEMP) devices (EO 13514 requirement)
 - Meet green building goals for new and existing buildings (Guiding Principles and Leadership in Energy and Environmental Design [LEEDTM] Gold certification)
 - Continue educational campaign to change employee behaviors (turn off lights and computers when leaving at end of shift, utilize power management when available, avoid using space heaters, personal fridges, etc.)
 - Upgrade Idaho Falls facilities using either Utility Energy Services Contract (UESC) funds or internal upgrade program.

1.2 Scope 3 Greenhouse Gas Reduction

13% Scope 3 GHG reduction by FY 2020 from a FY 2008 baseline.

Executive Order 13514 mandates that agencies develop specific GHG reductions. DOE has set a reduction target of 13% for Scope 3 greenhouse gases. The EO sets 2008 as the baseline year against which reductions will be measured.

The INL Site reported Scope 3 GHG emissions for the baseline year, FY 2008, and annually thereafter. Using the Global Reporting Initiative standards, Scope 3 is defined as:

- Indirect or shared emissions generated by outsourced activities that benefit the INL Site (occur outside the INL Site's organizational boundaries, but are a consequence of the INL Site's activities). This can include a large number of activities, so the INL Site focused on transmission and distribution losses, employee commuting, employee travel, contracted waste disposal and contracted wastewater treatment since these categories were identified in the Technical Support Document for required reporting. Other activities that could be included in Scope 3 include the embodied emissions of purchased materials.

The INL Site contractors' EMS provides the framework and process for evaluating and monitoring Scopes 1, 2, and 3 GHG emissions and related reduction activities. On an annual basis, appropriate sustainability targets are developed and monitored through the EMS to support the overall reduction in GHG emissions.

As the EM missions end at various site locations, overall Scope 3 emissions are expected to decrease. Between FY 2011 and FY 2017, employees traveling to and from the Site location may be reduced by as many as 2,000 when subcontractors are included. Removing vehicles directly impacts Scope 1 and Scope 3 emissions.

The challenge is to minimize the impact of operations while increasing the growth of the INL Site. INL is integrating environmental performance improvement in the areas that matter most to its stakeholders and the Laboratory, including minimizing the environmental footprint, taking a progressive approach to climate change, and championing energy conservation.

1.2.1 Performance Status

Based on data entered into the CEDR and as shown in Table 2, the INL Site has reduced Scope 3 emissions by 7.3% in FY 2012 as compared to the FY 2008 baseline.

Table 2. INL Site Scope 3 GHG calculation results for FY 2008 and FY12, and the FY 2020 Goal, by emissions category.

Emission Type	FY 2008 Baseline (MT CO ₂ e)	FY 2012 Actual (MT CO ₂ e)	FY 2020 Reduction Goal (MT CO ₂ e)
Scope 3	28,853.7	26,760.9	25,102.7

Similar to Scopes 1 and 2 GHG emissions described above, one of the most significant factors that influence INL's Scope 3 GHG emissions is the large land area that requires long commutes (approximately 50 miles, one way). Transportation fuel was, in turn, the largest source of GHG emissions within Scope 3. Another source with high emissions was business air travel. Sources with low emissions were contracted waste disposal, contracted wastewater treatment, and business ground travel (rental and personal vehicles).

INL continues to reduce GHGs by transporting employees with a modernized transportation system, taking nearly 2,000 cars per day off the road. By streamlining the INL mass transit system that provides safe, efficient, and sustainable transportation to work for INL employees throughout the eastern Idaho region, INL encourages travel behavior changes to reduce carbon emissions and fossil fuel consumption, increased highway safety, and in doing so, INL models future trends in mass transit to local governments planning across the region. Other actions include instituting a park and ride system, relocating employees to town offices, use of ethanol 85 (E-85) and biodiesel (B20) fuels, and use of modern buses, vans, and light-duty vehicles to reduce carbon emissions.

1.2.2 Planned Actions

The INL Site will continue to implement projects that reduce employee commute, employee travel, waste disposal, and minimize electric usage to reduce Transmission and Distribution losses. Corresponding Scope 3 emission reductions will occur. Knowing the target emission for each GHG category as found in the INL GHG Reduction Strategy, helps prioritize and plan projects accordingly.

Employee Commute Reduction tactics include:

- Change commute by increasing carpools, change personal car use to INL buses
 - Parking management through parking pricing (e.g., begin charging, give discount for rideshare parking); preferential parking (e.g., designated carpool and vanpool spaces); parking supply reduction.
- Move employee work locations from Site to town when reasonable.
- Increase INL Bus ridership for Site employees by 5%.

- Increase telecommuting.
- Telework centers.
- Facility enhancements.
 - Secure bike storage or bike racks, shower facilities, and lockers.
- Use alternative fueled vehicles on business travel.
- Promote use of emission-free transportation source such as walking and biking.
- Subsidies:
 - Vanpool subsidies on a limited or continual basis.
 - Empty seat subsidy—to limit the amount start-up riders have to pay until new riders join.
 - Bike maintenance subsidy.

Employee Travel Reduction strategies:

- Use video and web conferencing to hold virtual meetings and avoid travel when possible.
- Increase rentals of hybrid and alternative-fueled vehicles over traditional options on business travel.
- Reduce air travel, particularly short-range (<300 miles) air travel, except where necessary for mission accomplishment.
- Reduce car rentals by promoting carpooling at conferences and other meetings on business travel.
- Research establishing a government rate for plug-in hybrid electric vehicle (PHEV) and hybrid electric vehicle (HEV) rentals while on business travel.
- Encourage the use of public or group transportation modes at destination cities.
- Implement the Federal Commuter Tax Credit for employees who chose to car pool to work. Continue to encourage the use of teleconferencing and trip consolidation to reduce miles traveled.

2. ENERGY MANAGEMENT AND HIGH PERFORMANCE SUSTAINABLE BUILDINGS

2.1 Energy Intensity Reduction

30% energy intensity reduction by FY 2015 from a FY 2003 baseline.

The INL Site goal for energy usage is a 30% reduction of energy intensity by FY 2015, as compared to the FY 2003 energy intensity baseline. Energy intensity is defined as energy use divided by building area and is measured in British Thermal Units per square foot (Btu/ft²). On average, an annual energy use reduction goal of 3% supports meeting the overall goal and provides a means to measure and trend progress. Energy intensive loads that are mission specific are excluded from the goal, according to the *Guidelines Establishing Criteria for Excluded Buildings* published by FEMP on January 27, 2006. The Advanced Test Reactor (ATR) and its support facilities are currently excluded from the reporting goal, but are not excluded from the responsibility to reduce energy use and GHGs where practicable.

Energy sources affected by this goal include electricity, natural gas, fuel oil, liquefied natural gas (LNG), and propane. Methods to reduce energy usage include capital project upgrades, operational modifications, and behavior changes by the INL workforce.

The INL Site energy intensity for FY 2012 was 157,690 Btu/ft² as compared to 183,111 Btu/ft² in FY 2003 for a calculated reduction of 13.8%. This reduction falls short of the desired 21% cumulative reduction goal for FY 2012.

Due to the nature of the various INL Site missions, many operations can be cyclical and result in varying usages of energy. As facilities are removed or processes are modified, the INL Site energy usage intensity can vary seemingly unrelated to actual overall reduction efforts.

The Integrated Waste Treatment Unit (IWTU) was completed in FY 2012 and houses the treatment process for treating the remaining wastes in the Tank Farm Facility. This treatment process initiated start-up test operations in third quarter of FY 2012 and is anticipated to go online at the end of the third quarter FY 2013. The treatment process will use significant amounts of water and electricity. The facility does not currently have the capability for individual building metering and is captured in the overall Idaho Nuclear Technology Center (INTEC) metering. While an increase in INTEC energy use will occur, this process is expected to operate for less than 1 year to complete its mission, at which time the facility energy use should decrease back to the current INTEC load.

A future facility is currently being designed for the treatment of the calcine solids stored in the Calcine Solids Storage Facility located at INTEC. The Calcine Disposition Project (CDP) is planning to use a portion of the IWTU facility for this project. The CDP will also be an energy intensive treatment process that could be operational by FY 2020.

The INL Site is planning for significant growth to further its missions with additional process related facilities at the major desert site locations and additional office and laboratory facilities at Idaho Falls locations. The INL Ten-Year Site Plan (TYSP) (DOE/ID-11474) provides an overview and details of conceptual laboratory growth. Several of these new facilities are identified in the New Buildings worksheet of the CEDR.

2.1.1 Performance Status

To meet the Strategic Sustainability Performance Plan (SSPP) energy goal, the INL Site should be at a 21% reduction by the end of FY 2012 as compared to the established FY 2003 baseline. As demonstrated through data entered into the CEDR, the INL Site is at a 13.8% in energy reduction, which also represents a 12.8% reduction from FY 2011.

INL made progress in FY 2012 with realized savings from the Materials and Fuels Complex (MFC) Energy Savings Performance Contract (ESPC) project. Additional energy reductions were realized through completion of five projects with Strategic Sustainability Initiative funding. These projects cost \$800K and installed a new chiller and retrofitted lighting in IF-616/617 (Willow Creek Building [WCB]), new exterior lighting on IF-601 (Research Office Building [ROB]), new water fixtures in IF-602 (INL Research Center [IRC] Office Building), and new CO₂ Controls in IF-654 (Engineering Research Office Building [EROB]).

2.1.2 Planned Actions

The INL Site capital project upgrades are funded primarily through alternative funding mechanisms that include ESPC and UESC. They both use external (non-DOE) funding for energy-related upgrades and are paid back over time using the energy cost savings generated by the project. The UESC process commenced on several owned and leased Idaho Falls facilities, but a major program requirement states that the payback must not exceed the length of the building lease. This greatly limits implementation as most leased facilities have 5 to 10 year leases and most payback calculations are 7 to 15 years. Still, the INL Site is actively pursuing these two alternative funding strategies to obtain additional energy savings. Finally, the INL Site will maximize the use of available utility incentive programs to help fund both internal and alternatively funded projects.

If funding becomes available during FY 2013, INL will supplement the ongoing ESPC project by providing Strategic Investment Funding (SIF) to implement projects that are either not readily adaptable to ESPC projects, or directly influence the efficiency of buildings that INL is pursuing the Guiding Principles.

The following projects were identified that will contribute to continued energy reductions for the INL Site:

- Pending SIF funding allocation in FY 2013, installation of up to eight energy reduction projects are estimated for the Specific Manufacturing Capability (SMC), MFC, and the Idaho Falls facilities areas. These projects require an estimated \$1.2M and were developed during FY 2012 for implementation in FY 2013.
 1. SMC Air Handler Heat Recovery Loop
 2. INL Administration Building (IAB) Building Automation System and Lighting Controls
 3. Information Operations and Research Center (IORC) Liebert System (9) Economizers
 4. IF-603 Variable Frequency Drives and Controls
 5. EROB Exterior Lighting
 6. WCB Exterior Lighting
 7. IRC Exterior Lighting
 8. MFC Lighting Controls (500 Occupancy Sensors).
- ESPC development continues, including review and acceptance of the Final Proposal from AMERSCO and start of design and construction for all enduring facilities at Central Facilities Area (CFA), ATR-Complex, and selected facilities at the SMC facility. Energy Conservation Measures (ECM) being pursued include lighting, heating, ventilating, and air conditioning (HVAC) controls, boiler plant elimination and fuel conversions, a solar wall installation, and metering.
- ICP planned actions for energy reduction activities after FY 2012 consist of discontinuing processes as the cleanup mission is completed and continued Decontamination and Dismantlement (D&D), which will result in a projected net reduction of building square footage for the INL EM program by the end of FY 2015 of 36,936 ft².
- AMWTP completion will place 12 facilities in a cold, dark, and dry status.

2.2 Utility Metering

Individual buildings or processes metering for 90% of electricity (by October 1, 2012); for 90% of steam, natural gas, and chilled water (by October 1, 2015).

Most of the INL Site buildings do not have meters installed. Limited meter installations have been performed primarily at MFC and CFA. Continued meter installations will be prioritized by the potential of the building to meet the Guiding Principles and the cost effectiveness of installing meters to meet the 90% metering goal.

In the latest Facilities Information Management System (FIMS) snapshot, the INL Site has over 900 real property assets such as facilities and structures, all of which potentially use electricity. The INL Site will continue to use DOE guidance and economic analysis to determine the most logical buildings to meter.

INL anticipates meeting the Guiding Principles on 27 facilities, which account for 15% of the enduring facilities at INL for both Nuclear Energy (NE) and EM programs. INL also anticipates meeting the goal to meter 90% of NE electric energy consumption by installing metering on an additional 15 facilities. In some cases, metering installations are common to both of these two separate metering related goals.

2.2.1 Performance Status

Metering for Guiding Principles

INL anticipates meeting the Guiding Principles on 27 facilities, which account for 15% of the enduring buildings for both NE and EM. Twenty-one of these facilities are currently metered. Three of the 21 facilities had new meters installed during FY 2012: two at CFA and one new building at MFC.

Metering for the 90% Goal

Thirty-nine buildings in Idaho Falls and 41 buildings at the desert site are currently metered. These 80 buildings represent 49% of the total INL Site electric energy being metered. As funding is available, and priorities determined, there are an additional 70 buildings available for metering that would raise the total INL buildings metered to 150.

All INL Idaho Falls town locations are currently metered for electricity and natural gas. In FY 2012, advanced metering was installed on 16 of the Idaho Falls town facilities through a project sponsored by Idaho Falls Power. In addition, the new Energy Systems Laboratory (ESL) was constructed in FY 2012 with plans to occupy early in FY 2013. The ESL facility contains significant metering and sub-metering intended to allow the facility manager precise control of building systems and to allow processes to be metered independently of the building energy use. With the new ESL facility, there will be 24 facilities counted in FY 2013 as having advanced metering and 16 facilities with standard meters for a total of 40 metered facilities.

Forty-one buildings at the desert site are currently metered, representing 39% of the desert site electricity metered. Twenty-six buildings are metered at MFC, five buildings are metered at CFA, one building is metered at the historic Experimental Breeder Reactor 1 (EBR-1) facility, and one building is metered at the ATR Complex. In addition, eight buildings at the ATR Complex are metered together as a process and are currently listed as INL's only Excluded Facilities for the energy efficiency goals. Thirty-two of these facilities are metered with advanced meters, with the remaining nine metered with existing standard metering.

Using a combination of the DOE Metering Guidance (memorandum from Jennifer C. MacDonald, Director, Sustainability Performance Office, May 6, 2011), the guidance for Electric Metering in Federal Buildings (DOE/EE-0312), the DOE Buildings Electric Metering Guidance of September 27, 2006, and the FEMP Metering Best Practices (October 2007), the INL FY 2011 Metering Plan (PLN-3911) was prepared to identify the appropriate buildings for installing new utility metering. The INL Site will only install meters on facilities that have the greatest potential of achieving Guiding Principle compliance, are greater than 5,000 ft², are not cold, dark, and dry, and will be in use after FY 2020.

The INL Metering Plan spreadsheet tools were updated in FY 2012 to reflect final actual FY 2011 energy usage to determine the number of facilities needed to be metered to meet the 90% goal for just NE facilities and for all INL Site facilities. The spreadsheet tools indicated that an additional 15 buildings still require metering for NE to meet the 90% goal for NE electrical use. Of these 15 facilities, up to 12 may be metered by ESPC Project 3 and the final three meters should be installed at SMC facilities.

DOE-EM indicates that up to 12 facilities may be metered by EM if funding is available. These 12 moderately sized facilities are the only buildings that EM is currently planning to meter due to uncertainty of the operating life for most EM facilities. If these 12 buildings are metered, and if NE meters all of the 56 NE buildings meeting the metering guidance, the spreadsheet tools calculate that only 71% of the total INL Site electric usage can be metered. The only way to exceed this 71% is to meter many smaller NE buildings and/or meter EM buildings with NE funding.

2.2.2 Planned Actions

Metering for the Guiding Principles

The three facilities that had new meters installed during FY 2012 will be monitored and the data compiled for input into the Environmental Protection Agency (EPA) Portfolio Manager online tool to determine a score for energy use. This score will then be used to validate the buildings energy performance for the Guiding Principles.

To achieve Guiding Principle compliance, six remaining buildings of the 27 still need to have metering installed. Five of these remaining meters are planned for installation in FY 2013 by ESPC Project 3 and the final meter will be on the newly constructed Research and Education Laboratory (REL) that be occupied in early FY 2014.

Metering for the 90% Goal

Two new facilities will be added to the INL inventory. The ESL will be counted beginning in FY 2013 and the new REL will be completed and added in FY 2014. Both of these facilities are planned to be certified as LEED™ Gold and will have extensive metering including advanced metering by the City of Idaho Falls.

The Metering Plan spreadsheet tools indicate that an additional 15 NE buildings require metering to meet the 90% Goal for NE. Installations are planned as follows:

- 12 facilities at CFA, MFC, and ATR Complex – Included in ESPC Project 3
- Three facilities at Test Area North (TAN) – Need to be installed through a work for others contract
- DOE-EM plans to install meters on up to 12 facilities if EM funding is available.

Total metering for the INL Site is summarized as follows:

- If only NE facilities are considered, 80 facilities are currently metered, two new Idaho Falls facilities will be added, and 15 additional meters must be installed to reach the 90% goal for a total of 97 meters.
- If the entire INL Site is considered, 80 facilities are currently metered, two new facilities will be added, 12 EM facilities will be metered, and 56 additional NE buildings are available to be metered for a total of 150 metered facilities to account for 71% of the INL Site's electric usage.

In addition to providing a means of trending and validating energy savings, metering also provides proactive space management opportunities. Building energy and water usage information assists with maintenance scheduling, enhanced resource utilization, and accurate space charge-back to building tenants. Advanced metering provides a method to encourage and validate employee behavior change, and provides a dependable tool for facility managers to tune building systems and controls.

2.3 Cool Roofs

Cool roofs, unless uneconomical, for roof replacements unless project already has CD-2 approval. New roofs must have thermal resistance of at least R-30.

2.3.1 Performance Status

In FY 2012, INL replaced 21,869 ft² of roofing on MFC-768 Section J (MFC Power Plant), TRA-614 (Office Building/Bunkhouse/Dial Room), TRA-620 (Office Building), and TRA-670 Sections H through K (Advanced Test Reactor Building) with new roofing that meets the Secretary of Energy's requirements for "cool roofs" and eliminated over \$260k of deferred maintenance. Additional "cool roofs" totaling 69,372 ft² were installed as part of the new construction for the new MFC Dial Room

(MFC-1728), the Irradiated Materials Characterization Lab (IMCL, MFC-1729), the Energy Systems Lab (IF-685), and seismic upgrades to the MFC Analytical Lab.

A total of 379,000 ft² or 17% of DOE-NE owned and operating INL roof area now have cool roofs.

2.3.2 Planned Actions

INL will continue to use the DOE-National Nuclear Security Administration (NNSA) RAMP program to install an additional 7,200 ft² of roofing in FY 2013 that meets the DOE “cool roof” requirement and will incorporate “cool roof” requirements into non-RAMP roof replacements as part of new construction and normal INL roof replacement and maintenance program.

In addition, INL will complete construction of the new REL at the Idaho Falls Campus in FY 2013. The total square footage of cool roof planned to be installed in 2013 is 51,000 ft².

The ICP contract extension identifies a currently unfunded project to evaluate Cool Roof technology when INTEC building roofs are replaced or significantly modified. In particular, CPP-666 was identified to apply Cool Roof technology when roofing maintenance is performed.

2.4 HPSB Existing Buildings

15% of existing buildings greater than 5,000 gross square feet (gsf) to be compliant with the five Guiding Principles of High Performance Sustainable Buildings (HPSB) by FY 2015.

There are 27 Guiding Principles in five categories. To achieve compliance with the Guiding Principles, all 27 must be met.

As indicated in the FIMS database, the INL Site has 168 buildings that are appropriate to consider for audits and upgrades to implement the Guiding Principles. Fifteen percent of these buildings calculates to a minimum of 26 buildings that must meet the Guiding Principles by FY 2015. INL has selected 27 buildings with the highest probability of meeting the Guiding Principles. Of these 27 buildings, one is LEEDTM Certified, one is LEEDTM Gold certified, and four are pending LEEDTM Gold certification. The remaining 20 buildings will be targeted for the Guiding Principles compliance path.

2.4.1 Performance Status

The LEEDTM Construction package for the new Radiological Environmental Sciences laboratory (IF-683) was submitted during FY 2012.

Metering was installed on three facilities (two at CFA, and one at MFC) so that electrical data can be compiled for entry into Portfolio Manager. Energy and water reduction projects were completed in FY 2012 for IF-601, IF-602, IF-616, and IF-654 to further enhance the Energy Star grading for implementation of the Guiding Principles in these facilities.

INL documented compliance with 15 of the 27 Guiding Principles.

2.4.2 Planned Actions

INL Site facilities selected to meet the Guiding Principles do not include buildings owned by EM. Since the EM mission at the INL Site is to reduce footprint and complete the cleanup, the existing building life is either too short or too uncertain to invest in upgrades. This presents a challenge because the INL Site as a whole must meet the 15% goal (26 buildings) as noted above. INL identified 27 INL facilities (1 more than the required 26) that have the highest probability of fully implementing the Guiding Principles. However, this is 11 facilities above the original INL target of 16 facilities (15% of the INL total) and is unlikely to occur by FY 2015 without additional project funding. All 27 facilities are listed in Table 3. This table includes information on metering and the year each building is expected to meet the Guiding Principles based on preliminary engineering evaluations. This table will be used as the work plan for prioritizing and managing the certification process for these identified buildings.

If funding becomes available in FY 2013, INL will further enhance the Energy Star rating for the identified facilities and assist with overall energy reductions for the entire INL Site by installation of up to eight energy reduction projects at the SMC, MFC, and the Idaho Falls facility areas. These projects require an estimated \$1.2M to construct and were developed during FY 2012 for implementation in FY 2013 with INL SIF.

1. SMC Air Handler Heat Recovery Loop
2. IAB Building Automation System and Lighting Controls
3. IORC Liebert System (9) Economizers
4. IF-603 VFCs and Controls
5. EROB Exterior Lighting
6. WCB Exterior Lighting
7. IRC Exterior Lighting
8. MFC Lighting Controls (500 Occupancy Sensors).

In FY 2013, INL will continue to develop additional projects for FY 2014 funding that will upgrade selected facilities in Table 3 to meet the Guiding Principles by the planned date. In addition, the CFA and ATR Complex buildings are targeted by ESPC Project 3 for Energy Conservation Measures (ECM) that will help these facilities meet the Guiding Principles.

The remaining 12 procedure oriented Guiding Principles will be documented for all buildings on Table 3 to achieve compliance by FY 2015.

Table 3. Buildings planned to meet Guiding Principles.

Building	Metered	iVu*	Water Metered	Guiding Principle Compliant	Comments
REL	2014	2014	2014	2015	LEED™ Gold in FY 2015
ESL	Yes	Yes	Yes	2013	LEED™ Gold in FY 2013
IMCL	Yes	Yes	Yes	2014	LEED™ Gold in FY 2013
IF-665 (CAES)	Yes	No	Yes	Yes	LEED™ Gold
IF-683 (RESL)	Yes	Yes	No	2013	LEED™ Gold in FY 2013
TRA-1608 (TSB)	No	No	No	Yes	LEED™ Certified
TRA-1626 (TTAF)	Yes	Yes	No	2014	Meets LEED™ Certification Except for Energy Use (further analyzing for Energy Star score)
IF-601	Yes	Yes	No	2013	
IF-602	Yes	Yes	No	2013	
IF-616	Yes	Yes	Yes	2013	
IF-654	Yes	Yes	Yes	2013	
IF-663	Yes	Yes	No	2013	
IF-680	Yes	No	2013	2014	Water Meter by City of Idaho Falls
IF-684	Yes	No	2013	2014	Water Meter by City of Idaho Falls
CF-1611	Yes	Yes	No	2013	

Table 3. (continued).

Building	Metered	iVu*	Water Metered	Guiding Principle Compliant	Comments
CF-1612	Yes	Yes	No	2013	
CF-1618	Yes	Yes	No	2013	
CF-612	2013	2013	No	2015	
CF-615	2013	2013	No	2015	
CF-621	Yes	Yes	No	2015	
CF-623	Yes	Yes	No	2015	
CF-696	2013	2013	No	2015	
CF-698	2013	2013	No	2015	
MFC-710	Yes	No	No	2014	Need to Access ESPC Installed Meter
MFC-725	Yes	No	No	2014	Need to Access ESPC Installed Meter
MFC-782	Yes	No	No	2014	Need to Access ESPC Installed Meter
TRA-628	2013	2013	No	2014	

* iVu is a Carrier building control system through which INL tracks and compiles meter data.

2.5 HPSB New Construction

All new construction, major renovations, and alterations of buildings greater than 5,000 GSF must comply with the Guiding Principles and, where the work exceeds \$5M, each are LEEDTM - NC Gold certification or equivalent.

The INL Site is implementing High Performance Sustainable practices and design specifications in new building design and construction by introducing High Performance Sustainable design criteria at conceptual design and following through during design and construction by using LEEDTM construction concepts and the Guiding Principles for High Performance Sustainable Buildings.

The INL Site also constructs buildings that are very mission specific and are not readily compatible with LEEDTM or with the Guiding Principles. One new such facility is IWTU at INTEC that completed Conceptual Design (CD) Level 4 in FY 2012. Due to the mission of this facility and its energy use characteristics, the internal process at this facility will consume most of the metered energy. The IWTU was also at CD Level 2 before the LEEDTM Gold requirement was implemented.

INL new construction includes DOE-owned and privately leased facilities. All existing leased facilities are privately owned. INL has no General Services Administration (GSA)-leased facilities.

2.5.1 Performance Status

Construction of the new Radiological and Environmental Sciences Laboratory (RESL) was completed in FY 2011 and LEEDTM Gold certification is expected in FY 2013.

Construction was completed on the new IMCL in FY 2012 and is expected to be LEEDTM Gold certified in FY 2013.

Construction was essentially completed on the new ESL in late FY 2012 and is expected to be LEEDTM Gold certified in FY 2013.

2.5.2 Planned Actions

LEED™ Gold certification is planned for the three facilities listed above in FY 2013. In addition, construction of the new REL is expected to be complete in FY 2013 with LEED™ Gold certification expected in FY 2014.

These four facilities will be assumed to be fully Guiding Principle compliant upon receipt of LEED™ Gold certification.

ICP has plans to renovate MFC-799 (7,329 ft²), Sodium Treatment System, identified in ICP contract extension and is planned for startup by September 30, 2015, and MFC-793 (3,809 ft²) planned for startup by September 30, 2016. Both are subject to Section I.81, Changes Clause in the ICP Contract Mod 231. Neither building will be subject to LEED™ design criteria, but both will be subject to implementing the Guiding Principles as far as is cost effective.

AMWTP does not project any new building starts within the remaining duration of the current contract.

2.6 Renewable Energy

7.5% of annual electricity consumption from renewable sources by FY 2013 and thereafter (5% FY 2010–2012).

The INL Site continues to actively pursue Renewable Energy Generation capability and purchase of renewable energy through the local utility and is annually purchasing Renewable Energy Certificates (RECs) in amounts as outlined in the Energy Policy Act of 2005.

The goal for onsite renewable energy generation and direct purchase of new renewable electricity is not likely to be met due to the low cost of electricity from abundant older hydroelectric and coal sources and limited availability of renewable electricity from local utilities. The payback for renewable energy projects was evaluated during the development of ESPC Project 3 at 211 years for photovoltaic and 60 years for a single wind turbine. Onsite renewable energy generation is unlikely to be successful without supplemental funding to support such projects.

2.6.1 Performance Status

There is one solar transpired wall at the IRC Records Storage Facility. This wall preheats outside fresh air for the office area of this facility. Two other transpired solar walls were installed in FY 2010 as part of the MFC ESPC project. These solar walls provide renewable energy that avoids the use of conventionally generated electricity. Although solar walls avoid other energy use and are a renewable source, they do not contribute to meeting this goal.

The INL Site procured 22,000 MWh of Wind Generated RECs from Idaho Falls Power at a total cost of \$22,000. This preferential purchase of new renewable energy represents 9.9% of the INL Site's electric usage in FY 2011 and is the purchase for FY 2012.

2.6.2 Planned Actions

Low energy costs benefit the INL Site, allowing for increased strategic missions and facility enhancements. However, cost benefit analyses generally lead decision makers to place a lower priority on installation of renewable energy projects.

During ESPC contract negotiations, existing lease updates, and new lease negotiations, installation of renewable energy generation is considered and payback evaluated. The proposed ESPC Project 3 is unlikely to result in renewable energy generation projects (wind or solar) due to the cost and long return on investment. The Energy Savings Company was not able to identify any projects that would cumulatively produce the electricity necessary to meet the goal of 7.5% of INL Site electric use or even 3.75% onsite renewable energy generation. INL research and development (R&D) continues to

investigate the potential installation of numerous renewable energy technologies, but INL will not invest limited funding into renewable projects that are not economically viable or mission compatible.

The INL Site could meet the onsite renewable energy generation goal if funding is secured to support renewable energy installation on the INL Site. However, if funding is not obtained, the goal will not be met.

The INL Site will continue to meet minimum requirements of purchasing at least 7.5% of the electric energy usage in equivalent RECs. INL has committed to increase purchase of RECs starting in FY 2012 and thereafter to 10% of the INL electric usage. Although the increase does not contribute to the GHG reduction goal, it does demonstrate INL's commitment to climate change adaptation and strategic leadership. INL has also committed to maximize the purchase of locally generated Green Power RECs.

2.7 REGIONAL AND LOCAL PLANNING

Executive Order 13514 instructs federal agencies to meet the following regional and local planning goals:

- Participate in regional transportation planning and recognize existing community transportation infrastructure
- Align federal policies to increase the effectiveness of local planning for energy choices such as locally generated renewable energy
- Ensure that planning for new federal facilities or new leases includes consideration of sites that are pedestrian friendly, near existing employment centers, accessible to public transit, and emphasize existing central cities and, in rural communities, existing or planned town centers
- Identify and analyze impacts of energy use and alternative energy sources in all Environmental Impact Statements and Environmental Assessments for proposals for new or expanded federal facilities under the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.)
- Coordinate with regional programs for federal, state, tribal, and local ecosystem, watershed, and environmental management.

2.7.1 Performance Status

As the INL Site primary contractor responsible for land management and sitewide leadership, INL maintains excellent relationships with local community planning and government groups, including the cities of Idaho Falls, Blackfoot, Arco, and Pocatello, as well as the counties of Bonneville, Butte, Bingham, and Bannock. Interactions include transportation infrastructure, facility planning locations, traffic patterns, and future infrastructure needs. When warranted, the community is involved and encouraged to supply feedback to decision makers during any National Environmental Policy Act public process.

Although limited, existing community transportation infrastructure usage is encouraged and INL works with multiple local and state agencies on transportation planning by providing input and sponsoring awareness events to promote employee-commuting ridership. In FY 2012, INL continued working with local transportation companies to coordinate a schedule for riders to the Blackfoot and Pocatello areas.

The bicycle remains a popular seasonal method of commuting at the Idaho Falls campus with increasing awareness of personal fitness and energy conservation. Facilities have designated bicycle spaces and INL continues to explore the possibility of covered parking for cycling and motorcycle commuters.

Sustainable Site development encompasses an integrated approach during the refurbishment and planning of future onsite facilities and infrastructure, consistent with the INL TYSP. INL encourages walking and bicycling as means of travel within Site boundaries; long-range Site development envisions continuous improvement of a bicycle and pedestrian-friendly environment.

INL continues to work with the following local planning organizations:

- Idaho Strategic Energy Alliance
- Yellowstone Business Partnership (INL representative is on the Board of Directors)
- Yellowstone-Teton Clean Cities Collation
- Bonneville County Transportation Committee
- Targhee Regional Public Transportation Authority.

3. FLEET AND FUEL MANAGMENT

3.1 Fleet Alternative Fuels

10% annual increase in fleet alternative fuel consumption by FY 2015 relative to an FY 2005 baseline.

The INL Site is developing diversified strategies for increasing alternative fuel consumption and reducing carbon emissions associated with light and heavy-duty vehicles. One of the DOE Order 436.1 transportation fuels goals is to increase the use of alternative fuels by 10% annually, as compared to the FY 2005 usage baseline. There are many opportunities to affect DOE's alternative fuel consumption by implementing fuel-switching activities at INL.

3.1.1 Performance Status

In FY 2012, the INL Site used 194,429 gasoline gallon equivalents of alternative fuels. This represents an increase of 154% over the FY 2005 use. These usages are a compilation of all INL Site contractors and the total of each of the various alternative fuels as reported into the Fleet Automotive Statistical Tool (FAST) database.

The INL Site is actively pursuing E-85 fuel and B20 usage. INL has increased the availability of E-85 and mandating its use while researching and implementing the use of B20 in the INL bus fleet throughout the year and across varied climate conditions.

Completed activities include:

- Increased the availability of alternative fuel by converting petroleum tanks to alternative fuel tanks and by encouraging the use of alternative fuel by all users of flex fuel vehicles.
- Updated the existing fueling infrastructure and provided additional alternative fuel locations to allow for improved fuel use tracking and control. Used a new technology, Radio Frequency Identification (RFID) fuel rings, also called "ring technology," making it easier to fuel INL vehicles by automatically capturing mileage and other data that employees once had to enter manually.
- Partnered with a local fuel distributor to make E-85 commercially available to east Idaho.
- Reported to flex fuel vehicle owners (quarterly) their percentage of E-85 usage compared to unleaded usage and encouraged the use of the appropriate flex fuel. This method of encouraging self-governing through information has led to increases in E-85 fuel use.
- Replaced the INL bus fleet with 52 new motor coaches that run on B20 and have improved fuel mileage by up to 50% (3 mpg to 6 mpg).

- Selected by GSA to receive three American Recovery and Reinvestment Act (ARRA) funded Parallel Hybrid drive shuttle buses to replace three 24-year-old buses. These new buses reduce petroleum use through greater efficiency and use B20. In FY 2012, the new buses were used on lightly loaded commuter routes and for shuttle and tour service.

- Researched methods to use B20 in the bus fleet year around.

Ongoing activities include:

- Continued efforts to right size the fleet with more flex-fuel vehicles capable of using E-85.
- DOE-ID and INL continued collaborating with the Yellowstone-Teton Clean Energy Coalition (local area Clean Cities program) to encourage and cooperate with local fueling stations and vendors to provide alternative transportation and fueling stations in the area.
- AMWTP has historically operated 89 passenger carrying light-use vehicles for transportation of personnel and goods to the desert site, though the fleet was reduced by 17 vehicles this year. The fleet consists of minivans capable of transporting up to six individuals. This small fleet averages over 2 million miles a year transporting approximately 500 personnel to and from car-pool locations in local community areas surrounding the INL Site.
- Each vehicle in the AMWTP fleet is an alternative fuel vehicle (AFV), and capable of using unleaded regular or E-85 as a fuel. Use of the Idaho Falls E-85 commercial fueling station continued through FY 2012. Employee commute vanpools based in Idaho Falls were requested by AMWTP management to use the E-85 fuel. Initially, these actions resulted in approximately 50% of total fleet using E-85. For FY 2012 the annual utilization of E-85 was approximately 23%. The reduction in use of E-85 was directly attributed to reliability issues with the van fleet during the colder months (November through April). AMWTP did manage to reach 44% utilization of E-85 during those months during which the region sees average low temperatures greater than the freezing point. In fact, the AMWTP fleet again exceeded 51% utilization of E-85 during June of 2012. Were it not for winter reliability issues, AMWTP would continue to meet the 10% annual increase in fleet alternative fuel consumption by FY 2015 goal.
- Transferring a portion of the AMWTP workforce to the INL bus system represents an additional increase in the utilization of alternative fuels as some of the vans, which were removed from the fleet did not use E-85. Occupants transferred from those vehicles that did not use E-85 are now carried by INL buses, which use B20.

3.1.2 Planned Actions

Additional increases in the use of alternative fuels will be obtained through numerous INL Site identified projects and activities that include:

- Continue researching the potential conversion of the INL bus fleet to alternative fuel types.
- Continue to track and trend reliability, fuel usage, and optimize performance of new B20 compatible buses while evaluating future purchases.
- Continue to encourage and establish process to stimulate the use of E-85 in flex-fuel vehicles at the end user level. This includes individual goal setting at an organization level and holding individuals accountable for non E-85 fuel purchases.
- Replace fleet heavy trucks and equipment with new equipment that will run on B20.

3.2 Fleet Petroleum Fuels

2% annual reduction in fleet petroleum consumption by FY 2020 relative to a FY 2005 baseline.

The INL Site is developing diversified strategies for reducing fossil fuel use and carbon emissions associated with light and heavy-duty vehicles. One of the DOE Order 436.1 transportation fuel goals is to reduce petroleum fuels by 2% annually through FY 2020 (30% total reduction), as compared to the FY 2005 usage baseline. There are many opportunities to affect DOE's petroleum fuel usage by implementing fuel reduction and fuel switching activities at INL.

3.2.1 Performance Status

In FY 2012, the INL Site used 747,777 gasoline gallon equivalents, a 20.3% reduction from FY 2005. This usage is a compilation of all INL Site contractors and the total of gasoline and diesel fuels as reported into the FAST database.

Completed activities include:

- Increased overall bus efficiencies by implementing express routes and eliminating underutilized routes. This was in conjunction with continued efforts in right sizing the fleet with more flex-fuel vehicles and hybrids.
- Incorporated the Park and Ride concept to reduce bus fuel usage, and developed additional Park and Ride lots for employees at outlying locations.
- Used innovative technology to track and reduce fuel usage such as Global Positioning System (GPS), RFID fuel rings, and data logger technology to monitor engine performance and driver habits.
- Replaced the INL bus fleet with 52 new motor coaches that run on B20, and have improved fuel mileage by up to 50% (3 mph to 6 mph).

Ongoing activities include:

- Continue research methods to use biodiesel blends in the bus fleet year around, reducing the need for 100% diesel.
- Continue the Reduce Idle Campaign that is saving fuel by better managing idling times. Results are positive as this campaign is saving 1,400 gallons of fuel per month.
- Continued efforts to right size the fleet with more fuel-efficient vehicles.
- As AMWTP has operated its van pool commuter fleet to meet alternative fuel use goals, it has also contributed to a corresponding reduction in petroleum fuel use. Additionally, as noted in Section 3.4, the reduction of the AMWTP fleet represents a sizeable reduction in the use of traditional petroleum fuels.

3.2.2 Planned Actions

Additional reductions in petroleum-based transportation fuels will be obtained through numerous INL Site identified projects and activities that include:

- Add one additional Park and Ride location to further reduce employee commute and bus fleet fuel usage.
- Anticipate a reduction in petroleum usage as AMWTP comes to a close. Additionally, several pieces of heavy equipment will be consolidated further to reduce vehicle inventory and fuel usage.
- Evaluate technology that will allow INL to operate the bus fleet on "mixed" fuel, which is a combination of CNG and biodiesel. This may allow INL to reduce fuel usage by up to 30%.

- Implement Federal Commuter Tax Credit for employees who chose to carpool to work. Continue to encourage the use of teleconferencing and trip consolidation to reduce miles traveled.

3.3 Fleet Vehicle Purchases

75% of light-duty vehicle purchases must consist of alternative fuel vehicles (AFV) by FY 2000 and thereafter.

INL procures light-duty fleet vehicles almost exclusively through the GSA vehicle-leasing program. Maximizing the use of this GSA program is at the forefront of INL plans to achieve this goal. A rotation schedule based on vehicle age and mileage determines when vehicles are returned to GSA. When currently allocated vehicles are due for replacement, the old vehicle is replaced with an AFV or hybrid vehicle from GSA. There are currently very few exceptions for receiving conventional vehicles. Examples include some emergency response vehicles and heavy-duty full-size pickups. However, DOE Headquarters (HQ) has directed that hybrid vehicles (which are not AFV vehicles at this time) be procured when available. This greatly impacts the 75% AFV target.

3.3.1 Performance Status

The INL light-duty fleet is comprised of 378 vehicles of which 55 are AFV, 209 are E-85, and 58 are gas/electric hybrids. The INL Site acquired nine light-duty vehicles in FY 2012, all of which are flex-fuel (100%), none are hybrid, and none are gasoline.

The INL light-duty fleet was reduced an additional 13 vehicles for cost reduction and through fleet rightsizing initiatives.

An all-electric Polaris Ranger was tested at two remote locations for feasibility and practicality as a replacement for different brands of Utility Terrain Vehicles (UTV). The test was successful as operators enjoyed the quiet ride and power. Finding an outlet for recharge was occasionally difficult, but once locations were identified it became inconsequential. Early indications also point to lower maintenance costs. The purchase price of \$16K places this model at the top of the UTV price range and may take years to recoup the savings the all electric models provide.

3.3.2 Planned Actions

A survey will be sent out to all INL light vehicle custodians to ensure the vehicle is being used in accordance with the vehicle justification form. This survey will help ensure accurate information is gathered and mission critical vehicles are excluded from ongoing vehicle reductions measures. The goal is to reduce the light-duty fleet further by approximately 100 vehicles.

3.4 Fleet Inventory Sizing

Reduce fleet inventory by 35% within the next 3 years (end of FY 2013) relative to a FY 2005 baseline.

3.4.1 Performance Status

The INL Site and DOE-ID committed to meet the 35% reduction goal by FY 2013 and met the goal one year early, reducing vehicle inventory by 148 units.

In January 2012, INL entered into a partnership with GSA to acquire 52 new buses. The buses started arriving in March. With the addition of the 52 new GSA-leased buses, INL eliminated 52 owned, inefficient buses from the fleet and increased capacity from 44 passenger buses to 55 passenger buses. The reliability of the new buses allowed INL to reduce the number of spares buses kept “road ready” during starting and maintenance issues.

INL was able to reduce the heavy equipment pool by 60 pieces of equipment. This was accomplished through monitoring equipment usage, fleet equipment advisory group input, and using the J-hook heavy truck system of using multiple beds for one truck.

AMWTP reduced its van fleet by 17 vehicles during the fiscal year by transferring a portion of the workforce residing in Idaho Falls to the INL bus system. This represents nearly a 20% reduction in the size of the AMWTP van fleet as the INL bus system did not need to add vehicles to accommodate the addition of this portion of the AMWTP workforce.

3.4.2 Planned Actions

INL will allocate the majority of equipment to the end user except for a small centralized fleet of approximately 100 pieces of equipment. In doing so, the custodian will be accountable for cost, acquisition, maintenance, and storage of the equipment. However, Fleet Management will maintain input on all equipment acquisitions.

INL is planning a strategic reduction of 100 vehicles (20%) in FY 2013 to better reflect mission need, resolve budget challenges, and support complex wide goals.

4. WATER USE GOALS

4.1 Water Use Reductions

26% water intensity reduction by FY 2020 from a FY 2007 baseline

The INL Site's goal for water usage is a 16% reduction of usage intensity by FY 2015, or 2% each year, as compared to the FY 2007 Water Usage Intensity Baseline measured in gallons per square foot (gal/ft²).

Due to the nature of the various INL Site missions, many of the operations can be cyclical and result in varying usages of water throughout the year and from year to year. In addition, as facilities are removed and processes are shut down, the lower square footage can actually result in an increase in water use intensity even as overall water usage is reduced.

The water intensity reduction goal will be very difficult for the INL Site to accomplish. Long payback calculations based on inexpensive water and electric rates make water saving projects cost ineffective. Water usage is so dependent upon process usage and events or activities such as wildfires and D&D or construction work, that this goal will be very difficult to obtain.

4.1.1 Performance Status

As per the water reduction goals found in DOE 436.1, the INL Site should be at a 10% water intensity reduction at the end of FY 2012 when compared to the FY 2007 Reportable Water Usage Baseline. The INL Site used a total of 858.9 million gal of water in FY 2012, resulting in a water usage intensity of 154.0 gal/ft², a decrease of 11.4% over the FY 2007 baseline (173.9 gal/ft²). However, as demonstrated through water use and building square footage data entered into the CEDR, the INL Site total water used has decreased from 1,050.9 million gal in FY 2007 to 858.9 million gal in FY 2012, for a total water used reduction of 18.3%.

Construction was completed on the new ESL facility, which incorporated significant xeriscaping, efficient water fixtures, and water sub-metering. This facility is expected to be a low water user and help to lower the INL Site water use intensity. In addition, all water fixtures in the IRC Office Building (IF-602) were replaced with new low-flow fixtures.

4.1.2 Planned Actions

Other projects that will continue to contribute to water use reductions for the INL Site include several ongoing tasks:

- Leak analyses will continue at all areas of the Site.
- INL and ICP will continue purchasing Environmental Protection Agency WaterSense or other water efficient products, which will be documented by Sustainable Procurement processes.
- ESPC Project 3 planned for CFA and the ATR Complex may eliminate once-through HVAC cooling water, increase efficiency through fixture replacements, locate and repair leaking water lines, and possibly reduce industrial water use at the ATR Complex.
- The new REL facility in Idaho Falls is scheduled to be completed in 2013. This LEED™ Gold facility, similar to the ESL, should be a low water user by incorporating xeriscaping concepts and low-flow water fixtures while adding over 239,000 ft² of space to the water intensity calculation.
- EM missions, as noted in the CEDR, will contribute to water reductions as facility missions are complete. These include the AMWTP complex of facilities being cold, dark, and dry.

Based on the previous cost of the MFC ESPC that resulted in a 5% water reduction and the proposed ESPC at the ATR Complex and CFA, additional water reduction implementation at the INL Site could cost between \$40M and \$50M. Projects include:

- Replace all high-water use faucets, toilets, showerheads, and urinals across the INL Site.
- Upgrade ATR cooling tower.
- Detect and repair underground leaks.
- Re-route ATR Complex air compressor cooling water disposal paths.
- Reduce ATR Complex sewage lagoon size.
- Replace all inefficient domestic hot water heaters across the INL Site.

4.2 ILA Water Use Reductions

20% water consumption reduction of industrial, landscaping, and agricultural (ILA) water by FY 2020 from a FY 2010 baseline.

ILA water is not applicable to the INL Site. All water obtained by the INL Site is obtained from the Snake River Plain Aquifer and is potable. The INL Site does not have access to any non-potable water supplies.

4.2.1 Performance Status

N/A.

4.2.2 Planned Actions

N/A.

5. WASTE MINIMIZATION

5.1 Landfill Waste Diversion

Divert at least 50% of non-hazardous solid waste, excluding construction and demolition debris, by FY 2015.

“The INL Site Pollution Prevention Plan” (DOE/ID-10333) describes the pollution prevention practices pursued at the INL Site. INL continued the co-mingled recycling and paper shredding programs at the desert site facilities (CFA, MFC, and ATR Complex) during FY 2012. INL is also working with INL Site contractors to expand co-mingled recycling at other site facilities. All INL employees are capable of participating in the co-mingled recycling program that allows employees to place a variety of recyclable materials into one collection bin. ICP also has co-mingled recycling at town facilities and paper recycling at the desert site facilities. Additionally, ICP is working on implementing co-mingling at INTEC in FY 2013 and is pursuing composting waste diversion for ICP cafeteria consumables.

With the exception of SMC, all town and desert site employees have the option to participate in the paper shredding recycling program, which includes regular office paper and controlled unclassified information (CUI) materials for shredding. In FY 2012, INL facilities recycled 219,256 lbs of co-mingled materials and 402,820 lbs of office paper and cardboard. Additionally, INL diverted or recycled another 401,055 lbs of materials, including scrap metal, wood, cooking oil, compostables, and wood pallets. This accounts for approximately 32.8% diversion of municipal solid wastes collected at INL facilities.

The INL Site continues to utilize a number of processes to reduce the quantity and toxicity of hazardous chemicals. The processes follow the simple reduce, reuse, and recycle steps to help achieve the overall goal. The INL Site utilizes chemical coordinators and environmental personnel to help ensure the requested materials are actually needed, are not available through an exchange/sharing program, and the smallest/most appropriate quantity is being ordered. INL also stipulates the use of Massachusetts Institute of Technology (MIT) Green Chemical alternatives list at (<http://web.mit.edu/environment/academic/alternatives.html>) to help chemical coordinators identify “greener” alternatives to chemicals being requested. Researchers at the IRC are networked together by the chemical coordinator if one researcher needs a small quantity of a particular chemical that already exists at INL. This program helps ensure that the chemicals are used for the intended purpose, ensures continuous turnover of the inventory, reduces the time to get a chemical, and saves the researcher money in not having to purchase a chemical. Chemical coordinators actively search for existing inventory to preclude new purchases. INL also participated with other national laboratories to establish a chemical reduction guidance that will outline more specific steps and reduction goals for INL. INL has also worked with Procurement to screen subcontractor’s procurement requirements to ensure that less-hazardous chemicals are utilized when available and life-cycle costs are considered prior to purchase. INL and ICP are working actively and continually towards improvement in reduction of inventories through the avenues of acquisition, use, and disposal.

The INL Site Hazardous Waste Management Act (HWMA)/Resource Conservation and Recovery Act (RCRA) Permit requires that all operating contractors conduct and complete a source reduction evaluation review and written plan, in accordance with the procedures and format provided in the “EPA Waste Minimization Opportunity Assessment Manual” (EPA/625/7-88/003). This review and plan was submitted to the Idaho Department of Environmental Quality on March 31, 2011 and every 4 years thereafter, and must include detailed descriptions of any programs the contractors may have to assist generators of hazardous and mixed waste in reducing the volume (quantity) and toxicity of wastes produced.

AMWTP reduces and minimizes the quantity and toxicity of hazardous chemicals and materials through a procurement process that stresses environmentally preferable purchases. One of the objectives stated in the AMWTP management procedure for the acquisition of material and services is to use

recycled-content and bio-based content materials and other environmentally preferable products and services to the maximum practicable extent. Purchase requisitions are screened by an assigned procurement specialist for environmentally preferable materials.

AMWTP has also evaluated possibilities with the use of Value Engineering activities throughout the year to identify materials that have been initially dispositioned for disposal to determine whether such materials would be suitable for re-use onsite for changes in production. One example of this is the intended re-use of over 1,000 metal pallets for construction of modified six drum overpack (SDOP) containers.

5.1.1 Performance Status

As reported in the Pollution Prevention Tracking and Reporting System (PPTRS), the INL Site diverted 33.1% (527 Metric Tons [MT]) of its non-hazardous solid waste in FY 2012. INL diverted 33% (464.1 MT) of municipal solid waste from the landfill in FY 2012. ICP diverted 29% (41.4 MT), and AMWTP diverted 29% (21.6 MT) of municipal solid waste from the landfill in FY 2012.

INL implemented an interactive drag and drop recycling quiz that was incorporated into the all employee Environment, Safety, and Health (ES&H) refresher training and was placed on the Recycling Program's internal website. A recycle champion award was awarded quarterly to nominated employees for their enthusiasm and participation in the recycling program. INL Dining Services began recycling the used cooking oil through a vendor in FY 2012.

Midway through FY 2012, an interactive display was placed in the new "Dynamic Learning Center." The display is intended to provide a "hands-on" experience to all new employees with a follow-up assessment of material learned. This center is also open to all employees by appointment. INL attempted to revisit the cafeteria waste composting pilot during the summer of FY 2012, since efforts conducted in FY 2011 did not produce viable compost. Weather conditions, distance between facilities, and lack of volume may prohibit small-scale composting to be conducted onsite. Further evaluation and funding availability will be necessary before a composting program could be implemented.

5.1.2 Planned Actions

The INL Site will continue to educate and encourage employees to participate in the recycling and paper shredding programs in town and at the industrial campuses.

The INL Site will continue to evaluate potential outlets and the expansion of recyclable waste streams, such as mulching mowers, toner cartridges, fluorescent light tubes, batteries, and food wastes, to increase further the amount of wastes diverted from the landfill.

The INL Site will continue to reduce printing paper used through a campaign for users to set printers and copiers to duplex printing. Centrally managed printing will be evaluated.

The INL Site anticipates meeting this goal if funding is allocated to optimize the current waste diversion systems, modify contracts, and markets are available to divert waste streams.

5.2 Construction and Demolition Waste Diversion

Divert at least 50% of construction and demolition materials and debris, by FY 2015.

INL has incremental goals for construction and demolition waste, increasing 10% per year from 2011 through 2015.

The diversion of construction and demolition debris during D&D activities for ICP is often problematic due to the potential for radioactive contamination. Diversion of D&D waste is often quite costly and the wastes are usually disposed of onsite.

5.2.1 Performance Status

The INL Site diverted 29.6% of its construction and demolition (C&D) in FY 2012 (3,971 MT).

Construction waste and landfill acceptance data is analyzed quarterly to track performance against the goals. INL diverted 3% (67 MT) of C&D waste during FY 2012. This included C&D soil reused as landfill cover and asphalt regeneration. ICP diverted 6% (165 MT) of C&D waste in FY 2012. AMWTP diverted 44% (3,738 MT) of C&D waste in FY 2012, the majority of which was soil reuse.

5.2.2 Planned Actions

INL intends to perform the following actions to enhance the C&D waste diversion process:

- Incorporate metals recycling into D&D tasks when allowed under the current recycling moratorium
- Continue analyzing the conditional waste stream to develop better segregation and reuse strategies
- Engage construction subcontractors to solicit best practice ideas relative to the INL logistics and market potential.

6. SUSTAINABLE ACQUISITION

6.1 Sustainable Acquisition

Procurements meet sustainability requirements by including necessary sustainable provisions and acquisition clauses (95% each year).

DOE's SSPP commits to the following sustainable acquisition goals:

- Ensuring 95% of new contract actions, including task and delivery orders under new contracts and existing contracts, require the supply or use of products and services that are energy efficient (ENERGY STAR or FEMP-designated), water efficient (WaterSense), biobased, environmentally preferable (including Electronic Product Environmental Assessment Tool [EPEAT]-registered products), non-ozone depleting, contain recycled content, or are non-toxic or less-toxic alternatives.
- Updating departmental sustainable acquisition plans (previously known as green purchasing plans or environmentally preferable purchasing plans), policies, and programs to ensure that all federally mandated designated products and services are included in all relevant acquisitions.

6.1.1 Performance Status

The INL Site did not meet the 95% sustainable provisions goal. ICP was not contractually obligated to track this number in FY 2012; however, ICP is now required to implement, track, and report this data in FY 2013. INL reports indicate 71% of the contracts in FY 2012 contained applicable clauses. This does not meet the goal, but changes to contract acquisition systems are time intensive and costly with little benefit to contracts that are service based. However, INL made improvements in incorporating requirements through effective implementation of procedures, clauses, policies, and enhanced work processes that increase the visibility, availability, and use of sustainable products.

- INL continued to make progress incorporating additional and revised sustainable acquisition language into contracts
- INL will continue to use commodity codes related to sustainable acquisition products to reduce the number of purchases greatly that require further review in an effort to enhance automated tracking and reporting within the current system.
- Preference program: INL's automatic document generation system was used to further incorporate in applicable contracts additional and revised sustainable acquisition language. For example, INL requires its supplier of standard desktop computers to provide items designated as EPEAT Silver or better.

- Estimation, Certification, and Verification: INL requires suppliers (e.g., construction services, office products, paper products, janitorial products) to deliver spend reports listing the designated versus preferred purchases. In addition, INL has developed standard reports that provide the summary data necessary for reporting spend for recycled content products and janitorial products.
- Annual Review and Monitoring: INL conducts an annual review and assessment of a specific aspect of the sustainable acquisition program.
- Sustainable acquisition requirements prior to FY 2011 were incorporated in DOE-ID major site contracts.

AMWTP has begun integrating sustainable acquisition clauses, new to the current contract, into a Sustainable Acquisitions Program, which will be implemented through procedures and roll downs into applicable subcontracts.

6.1.2 Planned Actions

In recent years, there continued to be many changes and additions in sustainable acquisition requirements. INL plans to perform the following actions to improve its sustainable acquisition program:

- Develop appropriate mechanisms to augment the existing reporting requirements and track compliance with this goal
- Enhance the current ordering system to increase sustainable acquisition visibility to the laboratory community
- Ensure personnel resources are adequate and aligned in accordance with the proper organizational roles and responsibilities
- Conduct a campaign to increase the education and awareness of sustainable acquisitions and their effect on certain INL performance requirements
- Benchmark processes with other laboratories to leverage lessons learned and to discover potential improvements to INL's process.

7. DATA CENTERS AND ELECTRONICS STEWARDSHIP

7.1 Data Center Metering

All data centers are metered to measure a monthly Power Utilization Effectiveness (PUE) (100% by FY 2015).

The INL Site has four data centers. The first is INL's IORC, which is the primary location for the business enterprise servers and data repository. This data center hosts business systems, e-mail, project applications, and the primary business infrastructure systems for INL. The second data center is in EROB and is the location for the High Performance Computing (HPC) servers and storage.

ICP has two small data centers, one in Idaho Falls at IORC and the other at the desert site.

7.1.1 Performance Status

The HPC data center in EROB was metered when constructed in FY 2007. In FY 2011, these meters were connected to INL's i-View building control system in order to visually display real-time power consumption and automatically calculate PUE. Additionally, the IORC data center is now metered separately and uses the i-View system to trend and track data.

7.1.2 Planned Actions

Both data centers are metered separately from the remainder of their respective facilities. INL will continue to monitor, trend, and track data from each meter to ensure accuracy and validate PUE.

7.2 Data Centers PUE Measurement

Maximum annual weighted average Power Utilization Effectiveness (PUE) of 1.4 by FY 2015.

7.2.1 Performance Status

The IORC data center PUE calculates at an average of 2.03.

The EROB data center PUE has an average calculation of 1.34.

The ICP data centers were added in FY 2012 based on the updated data center definition. Plans are being developed to track, trend, and report data center PUE in the future.

Several operational adjustments were made in FY 2012 to improve the overall efficiency of the HPC data center.

- Prior to FY 2012, the Computer Room Air Conditioning (CRAC) unit fans were configured to operate at a variable speed that produced an inconsistency in airflow throughout the data center. Sections of the data center, depending on the size and usage of computer equipment, were much warmer than other areas. To provide better air flow and achieve a more uniform room temperature, the CRACs were set to a constant fan speed, which has helped produced a more uniform temperature.
- The operating room temperature was increased 7°F, from 68°F to 75°F.
- Intelligence was programmed into CRAC units and chillers to allow the chilled water supply temperature to be adjusted dependent upon the heat generated by the computer systems (i.e., as the load increases on the computer systems they generate more heat, requiring more cooling and vice versa). The CRAC units now sense that need and open their valves wider, which tells the chillers that more cooling is required and they decrease the temperature of the water supply. The chilled water supply had been hard set to 43°F; with this change, the average required temperature has increased 3°F to 5°F, which decreases the power consumption of the chillers.
- Two additional modifications were made that will improve the overall performance of the chiller plant, though not necessarily decrease PUE. The chillers and cooling towers, two of each, had been previously operating in solely a redundant mode (i.e., the second one would only be used in event of a failure of the first). The plant has been reprogrammed to operate using both chillers and both cooling towers as the load requires, while maintaining the lowest possible power consumption to meet the cooling demands.

In addition, to achieve greater operational efficiency, Information Management (IM) has embraced numerous emerging technologies within the two INL data centers by the following industry standard practices:

- Virtualizing and consolidating servers. Currently, more than half of INL servers are running in a virtual environment.
- Investing in new high-efficient server and uninterruptable power supply (UPS) hardware and replacing the legacy systems.
- Implementing facility best practices to reduce energy use.
 - Redesigning data centers and establishing hot and cold aisles to decrease air conditioner usage.
 - Removing old cabling under the floor to improve airflow.
- Investigating using newer network equipment that will utilize higher bandwidth with less equipment and port needs (Cisco Nexus).
- Purchasing Energy Star rated equipment where applicable.

7.2.2 Planned Actions

Virtual Machine (VM) Server Farms. INL IM will promote the use of virtual servers (one physical server computer which may use several virtual instances of server computers) wherever possible in place of single-purpose servers.

VM Desktops. IM will promote the use of virtual desktops on one physical desktop computer for users who need to use several different operating systems.

Desktop Refresh Initiative (DRI). When the end of the year overall INL budget allows, IM will also facilitate the desktop refresher initiative that purchases newer, more efficient computers to replace older wasteful desktop computers and laptops.

As part of ongoing activities, IM will continue to upgrade and consolidate servers. Additional planned activities include popular data center practices such as increasing the data center room temperature by approximately 10°F. This by itself should provide further savings without additional risk. The data center control system is a “Carrier” system with a large number of monitoring and control points. This system will be further enhanced to provide better day-to-day monitoring, trending, and reporting. Other options are being considered such as powering down unused computer nodes to save additional power.

7.3 Electronic Stewardship

Electronic Stewardship – 100% of eligible PCs, laptops, and monitors with power management actively implemented and in use by FY 2012.

7.3.1 Performance Status

The INL Site has been a partner in the Federal Electronics Challenge (FEC) since FY 2007. INL’s participation in the FEC is supported by representatives from procurement, information management, property management, and environmental support services. Through continuous improvement, INL has emerged as a leader in electronics stewardship as evidenced by winning the FEC Bronze award in FY 2007, FY 2008, and FY 2011, and the FEC Silver award in FY 2009, FY 2010, and FY 2012. More specifically:

- INL currently has both a policy and procedure that covers the responsibility and directions for implementing and maintaining power management on PCs and monitors, and shutting down PCs (and peripherals) when not in use. The lab-wide procedure covers 100% of IM managed systems and excludes sensitive and mission-critical equipment. It also calls for owners of self-managed systems to implement the “company-standard” power management settings.
- IM continues to use a centrally managed configuration tool (LANDesk) to set and maintain power management settings on all Information Technology (IT)-managed and jointly managed computers. Administrators of self-managed computers (computers that are not manageable with LANDesk) are given instruction on how to set the power management settings on their computers. Exemptions from these power management settings are tracked in IM’s Remedy database and are approved after valid business justifications for exemptions are provided.
- All network printers were set to duplex default in FY 2011. In FY 2012, the maintenance contract for copiers was modified to include setting all copiers to duplex default. All networked printers are required to support duplex printing as part of INL’s printer standards, and efforts were started in FY 2012 to start using managed print services.
- INL promotes the standard for new electronic equipment and hardware to be a minimum of Energy Star 5.0 Category B rating and wherever possible, Category A Energy Rating. Dell Energy Smart is enabled from the manufacturer. Dell eSMART settings are used wherever possible.
- In FY 2012, 93.7% of desktops were FEMP Low Power Standby Compliant.

- In FY 2012, 98.6% of office-based desktops, notebooks, workstation desktops, and workstation notebooks and 97.7% of office-based computer displays were EPEAT registered. The INL standard for procurement of desktop computers, workstations, and laptops is to meet or exceed EPEAT Silver and wherever possible, EPEAT Gold standards.
- INL property services reuses computers and other electronics through disposal via reutilization, donations, transfers, and sales. These methods meet the GSA definition for recycling electronic property, resulting in over 99% reuse during FY 2012.

ICP also partnered in the FEC and was awarded the FEC Bronze award in FY 2011. Several energy saving activities are in place. Power management settings are available on personal computer systems. Network copiers were set to duplex default in FY 2012.

It is AMWTP's policy to procure only Energy Star compliant computer monitors with Energy Star power management features enabled as part of the standard load. The AMWTP IT Infrastructure Group has an established policy stating that all eligible computers and monitors must have Energy Star features that allow AMWTP to comply with the DOE's mission while ensuring effective energy conservation. The Group has implemented configurations and mechanisms on eligible systems to execute energy conservation measures automatically. Certain production and plant operations systems were excluded from this policy (i.e., control room systems and camera monitors, as those systems are safety and operations related and must remain in the "on" position). AMWTP employees are prevented from making changes to these settings by cyber security policies that are in place on all AMWTP systems.

7.3.2 Planned Actions

INL Site planned actions for FY 2013 include:

- Continue to focus efforts that are cost effective and least disruptive to performers and will continue to work with IM and procurement to improve electronic stewardship.
- ICP will set network printers to duplex default in FY 2013. Desktop configuration hardware is in compliance with Energy Star and DOE standby power requirements.
- INL will achieve the FEC Gold award level for FY 2013 activities.

8. SITE INNOVATIONS

INL is a science-based applied engineering national laboratory whose mission is to "ensure the nation's energy security with safe, competitive, and sustainable energy systems and unique national and homeland security capabilities." INL pursues this mission by conducting research, development, and demonstration activities to help speed the deployment of clean energy technologies, improve the management of energy-related materials, and reduce the environmental consequences of energy development.

INL is one of DOE's three recognized "energy" laboratories, and is the lead laboratory for nuclear energy research and development. In addition to the nuclear mission, INL also conducts research on advanced energy system component integration and system design and analyses comprising the following elements: (1) process modeling and analysis, (2) feedstock production and processing, (3) energy integration and heat transfer, (4) energy storage and product synthesis, (5) byproduct management, (6) process and system monitoring, control, and maintenance. INL's R&D program integrates engineering models with testing, instruments, monitoring, and control schemes to support optimal energy systems design, energy resource optimization, total carbon/water management, and hybrid energy systems. INL has recognized applied science and engineering leadership in the following clean energy specialty areas:

- Development and demonstration of biofuels feedstock technology
- Testing and demonstration of advanced battery technology

- Protection and testing of critical infrastructure
- Through the Center for Advanced Energy Studies (CAES), evaluation of energy efficiency technology to determine best practices for energy efficiency deployment
- Design and testing of hybrid energy systems for increased utilization of renewable energy and production of low carbon synthetic fuels
- Geothermal resource characterization, systems engineering, and energy recovery
- Transportation and safe management of nuclear materials
- Water resource sustainability and climate change adaptation.

The INL Site is deploying energy sustainability technologies that build on advances made by these energy research programs. INL is pursuing site innovation in three major areas: vehicles, building energy usage, and environmental sustainability.

8.1 Vehicles

INL is supporting efficient, low carbon vehicle site innovations in three ways. For heavy vehicles such as buses and heavy trucks, INL is purchasing alternative fuel vehicles that have higher fuel efficiency than prior units and can operate on B20. Deployment of alternative fuel vehicles is consistent with developing a market for biofuels, and opens up opportunities to use the INL Bioenergy Program's process demonstration unit (PDU) and the hybrid energy systems facility to integrate renewable electricity generation and regional biomass production to increase simultaneously utilization of alternative low-carbon fuels while increasing utilization of renewable energy. INL is also purchasing light-duty vehicles that have higher fuel economy, can use alternative fuels, and operate on electricity. This innovation is synergistic with INL's battery testing program, and has the capacity to expand INL's usage of renewable energy. Utilization of electric vehicles also has potential synergy with INL's critical infrastructure protection facility; as such, a facility could be teamed with hybrid electric vehicles to investigate how large-scale utilization of electric vehicles could impact the security of urban electric systems and/or enhance utilization of renewable electricity.

8.2 Building Energy Usage

INL is building upon our programs in energy efficiency to lead the region in the deployment of sustainable buildings that meet the U.S. Green Building Council's LEEDTM certification. Of INL's existing buildings, the CAES has achieved a LEEDTM Gold certification. Two new buildings that are currently under construction, the ESL and the RESL will also be LEEDTM certified, with the RESL building to be LEEDTM Gold certified. INL is also deploying solar generation where practicable, and is investigating the potential to utilize geothermal resources to improve energy sustainability. Ground-source geothermal heat pumps are currently being investigated as an option for providing renewable heating and cooling services. INL is also developing plans to operate an Enhanced Geothermal Systems (EGS) test and demonstration facility at the INL Site, which is located in one of the United States' most promising areas for geothermal resource development. If realized, the EGS test facility could also support site innovation for producing renewable energy to support site operations.

8.3 Environmental Sustainability

INL is also building upon laboratory nuclear and environmental research programs to discover new ways to utilize site operations to support environmental sustainability goals. As the nation's lead nuclear laboratory, INL produces small amounts of radiologic waste material during our research operations. Most of this radiologic waste is produced at the ATR Complex and NRF. INL is in the process of designing and constructing a new radiologic waste facility to support these operations. This work is being funded out of the INL site operations budget, and has provided innovative new solutions to the environmental challenges of radiologic waste management. In this case, site operations are helping to advance an essential aspect of INL's R&D mission to advance civilian nuclear power as a clean energy alternative.

INL is also finding synergies between site operations and INL's R&D mission in the area of climate change adaptation and the future availability of water. INL's Mountain West Water Institute (MWWI) hosts a regional forum on how to address regional water sustainability issues, including water security, energy impacts on water resources, and the future availability of water. Through these forums, the MWWI helps regional stakeholders to learn about the water challenges and share ideas and case studies on how to resolve these issues. INL site operations are integral to this, as INL hosts one of the largest areas of controlled-access, minimally disturbed land in the western U.S.. Researchers at the United States Geological Survey and regional universities use INL property as a test bed to improve INL understanding of the relationships between climate, water, land management, and fire risk; and are also engaged in the MWWI initiative. This synergy provides a strong example of how INL site operations and INL research operations are working together to help regional stakeholders and agencies meet sustainability goals.

9. BUDGET/FUNDING

9.1 Energy Savings Performance Contracts (ESPC) Projects

INL has three active ESPC projects, the first at the IRC Complex was completed in FY 2002, the second project at the MFC Complex was completed in FY 2010, and a third project is being developed for the CFA and ATR Complex areas.

- ESPC Project 1 included lighting and primary transformer upgrades at the IRC Complex for an installed cost of \$779K, and is in Year 11 of a 19-year contract term.
- ESPC Project 2 included boiler and compressor replacements, lighting and HVAC upgrades, and solar wall installations at the MFC Complex for an installed cost of \$33M and is in Year 2 of a 16-year contract term.
- ESPC Project 3 is being developed primarily for the CFA and ATR Complex areas and will include lighting and HVAC upgrades, control systems upgrades, boiler system replacements, and a potential solar wall installation. This project is expected to cost between \$8M and \$10M and to have a 22-year contract term. The project is expected to begin construction in FY 2013.

Monthly tracking of project milestones is provided to the DOE Sustainability Performance Office (SPO) for these three projects as required by the president's \$2B performance contracting initiative.

9.2 Sustainability related investments as required by Circular A-11

INL has identified 31 internal invest opportunities as reported in the Office of Management and Budget Circular A-11 – Section 25 budget table. The Investment Type breakdown is as follows: 11 projects are Embedded/Leveraged Investments; 14 are Incremental Investments; and six are Alternative Investments. The bulk of the investments are intended to support energy management, water management, and design and construction, but capital equipment and renewable energy are also included. Annually, INL identifies projects and funding necessary to meet the requirements of the DOE Orders.

The 31 opportunities include control system upgrades, water fixture replacements, efficient motors, electric and water meter installation, outdated mechanical equipment replacement, renewable energy installation, and applying R&D projects as a proof-of-concept. This list is refined annually based on emerging data analysis and program direction. INL consults with energy, transportation, and environmental coordinators and the SPO as project proposals are revised, ensuring up-to-date direction is incorporated into the decision making process.

9.3 Integration of Long-Term Sustainability Goals into the Budget Process

As a government entity, the INL Site is limited in funding acquisition pathways. There is no standard formula for funding sustainability initiatives. However, realistic funding strategies reflect four main sources:

- ESPC and UESCs
- Utility incentive programs
- Direct and indirect funding and reinvesting cost savings from sustainable actions
- Special funding requests (third party, DOE base funding, line item).

A practical hybrid approach is achievable where all stakeholders participate with funding. Each of the four sources has merits and drawbacks. For example, ESPC projects are comprehensive but time consuming to develop. Typically, an ESPC project can take over 12 months for project development followed by 18 months or more for design and construction.

The base Sustainable INL Program is funded with indirect dollars. The program is able to use utility incentives to further fund facility upgrades. Strategic investment dollars are prioritized at a senior leadership level and balanced against Laboratory needs.

The challenge of implementing sustainability is to minimize the impact to operations while increasing the health and viability of the Laboratory. INL is integrating sustainability performance improvements in the areas that matter most to its stakeholders, including minimizing the environmental footprint, taking a progressive approach to mitigating climate change, and championing energy conservation.

9.4 Reinvestment Program

The INL Site has three options available for reinvestment of energy and water savings:

- **Utility Incentives.** Project rebate incentives are available from Idaho Power, Idaho Falls Power, and the Bonneville Power Administration. These incentive programs are routinely used to obtain incentive payments for both internally funding projects and alternatively funded projects. The incentive payments are used to fund additional project opportunities or to buy down the cost of ESPC projects, allowing for additional ESPC ECM implementation.
- **ESPC Excess Savings Reinvestment.** ESPC projects typically guarantee energy savings less than the expected calculated savings. These excess savings should be identified for reinvestment into additional energy and water saving projects.
- **Energy Savings from Internally Funded Projects.** All internally funded projects intended to reduce energy consumption provide reinvestment opportunities for realized savings. In FY 2013, savings from the FY 2012 SIF projects will be tracked and a savings reinvestment plan piloted in FY 2014.

As meters are installed on the buildings expected to meet the Guiding Principles and on buildings upgraded by ESPC projects, the energy consumption data will be tracked and realized savings will be identified for reinvestment opportunities. This data will be used to develop a draft formal reinvestment program for INL in FY 2013.

10. CLIMATE CHANGE ADAPTATION

10.1 Climate Change Adaptation

The Intergovernmental Panel on Climate Change defines climate adaptation as, “adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.” The White House Council on Environmental Quality’s Interagency Climate Change Adaptation Task Force has established a framework for conducting climate change adaptation planning, and DOE Secretary Chu adopted this framework in his Climate Adaptation Policy Statement of June 2, 2011. According to this document, the federal government’s core role should be to:

- Promote and implement best practices for adaptation
- Build greater public awareness and understanding of the importance of adaptation
- Maintain dialogue and partnerships with stakeholders and decision makers
- Enhance services that enable informed decisions based on the best available science
- Work with the international community to improve knowledge sharing.

This report also emphasizes that the federal government must exercise a leadership role to address climate impacts on federal infrastructure interests and on natural, cultural, and historic resources that it has statutory responsibilities to protect; and provides eight Guiding Principles for climate adaptation. These are (i) adopt integrated approaches, (ii) prioritize the most vulnerable, (iii) use the best available science, (iv) build strong partnerships, (v) apply risk management methods and tools, (vi) apply ecosystem based approaches, (viii) maximize mutual benefits, and (viii) continuously evaluate performance.

Secretary Chu’s Policy Statement of June 2, 2011 also established a DOE Climate Change Adaptation Planning Working Group, who would draft a climate adaptation plan and integrate it into the SSPP. Secretary Chu’s policy statement also notes that climate change adaptation efforts have the potential to provide synergy with DOE’s clean energy mission, and states that DOE will explore these opportunities while planning for climate adaptation. The 2012 SSPP established three priority actions for Climate Change Adaptation for FY 2012. In brief, these actions would:

- Outline a strategy to develop realistic climate scenarios, using the best available science
- Gain a better understanding of DOE programmatic implications and opportunities
- Use DOE’s existing emergency management, hazard assessment, risk management, and frameworks to evaluate climate change impacts at DOE sites.

The results from this work was summarized in DOE’s high-level analysis of vulnerability to climate change, and incorporated into the guidance the FY 2013 Site Sustainability Plans. The following section describes how INL will meet these objectives.

10.2 Objectives

INL Site sustainability accomplishments will help DOE meet the following objectives for climate change adaptation, as listed in the FY 2013 SSP Guidance document:

- Goal 1: Improve Understanding of Climate Change Effects and Impacts
 - Objective 1.1: Work with other agencies to improve INL’s understanding of climate change
 - Objective 1.2: Work with other federal agencies and local jurisdictions (as appropriate) to develop regional partnerships for climate change information sharing and collaboration

- Goal 2: Improve Understanding of Climate Change Vulnerabilities and Risk
 - Objective 2.2: Conduct detailed risk or vulnerability assessments, as appropriate, for specific DOE programs or facilities
- Goal 4: Improve the Climate Resiliency of all DOE Sites
 - Objective 4.1: Update all appropriate DOE site plans to address climate change resiliency
 - Objective 4.2: Identify or establish and participate in regional climate change adaptation partnerships, as appropriate, for all DOE facilities.

Note: Objectives 2.1, 3.1, and 3.2 in the DOE Climate Change Adaptation Plan were excluded from this section as they are not applicable to individual DOE sites.

10.3 Current Understanding of Potential Climate Change Effects and Impacts

The United States Global Change Research Program (USGCRP) has assessed climate impacts within nine major U.S. regions. INL is located in the high desert of southeastern Idaho, which is situated within USGCRP's Northwest Region (Figure 1). However, INL's local geography and ecology is more analogous to the Great Basin landscape (Figure 2, light red) than the wetter landscape of the Great Northern landscape that largely defines the USGCRP's Northwest region (Figure 2, dark green). This combination of physical geography and landscape form suggest that INL's site combines aspects of both the Northwest and Southwest regions, as defined by USGCRP. The Jim Bridger coal plant in Wyoming provides much of INL's electricity, and thus climactic trends in the Great Plains climate region could impact INL's electricity services. INL's location at the confluence of three major climate regions requires that impacts on each region be considered.

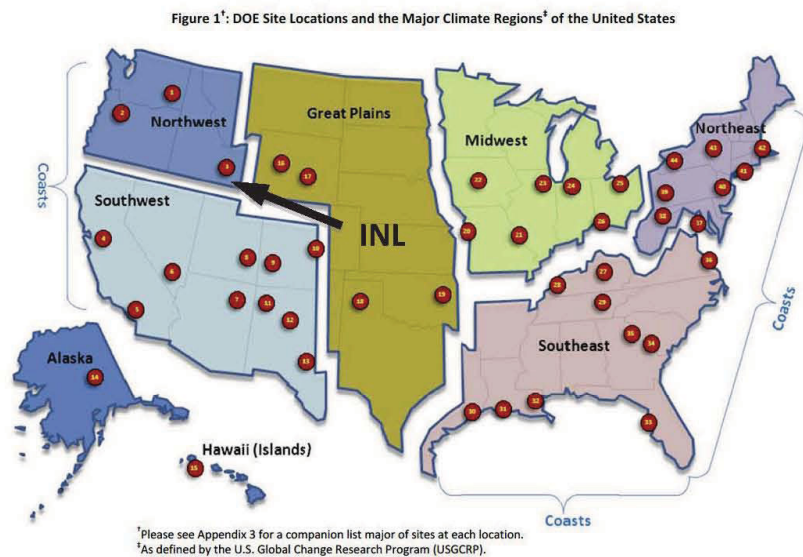


Figure 1. Major climate regions of the United States.

10.3.1 Climate Impacts for the Northwest Region

The USGCRP reports that annual average temperature over the Northwest region rose about 1.5°F over the past century, with some areas experiencing increases up to 4°F. The region's average temperature is projected to rise another 3 to 10°F between now and 2100 (USGCRP, 2009). Rising temperature will impact the region in a number of important ways. Key impacts will include:

- Increased summer temperatures, leading to greater heat stress and higher demand for energy to cool buildings.
- Declining spring snowpack and more prevalent spring rains, leading to higher spring run-off and lower summer stream flows and increasing strain on water resources.
- Higher summer water temperature, combined with lower stream flows, would reduce the efficiency and availability of cooling water for power production. This could reduce electricity availability during a period of increased demand for summer cooling.
- Increased incidence and severity of wildfire, impacting human health and safety, restricting site operations, and threatening electricity transmission infrastructure.
- Increased incidence of pestilence and disease, impacting human health and safety, and potentially altering ecosystem function.

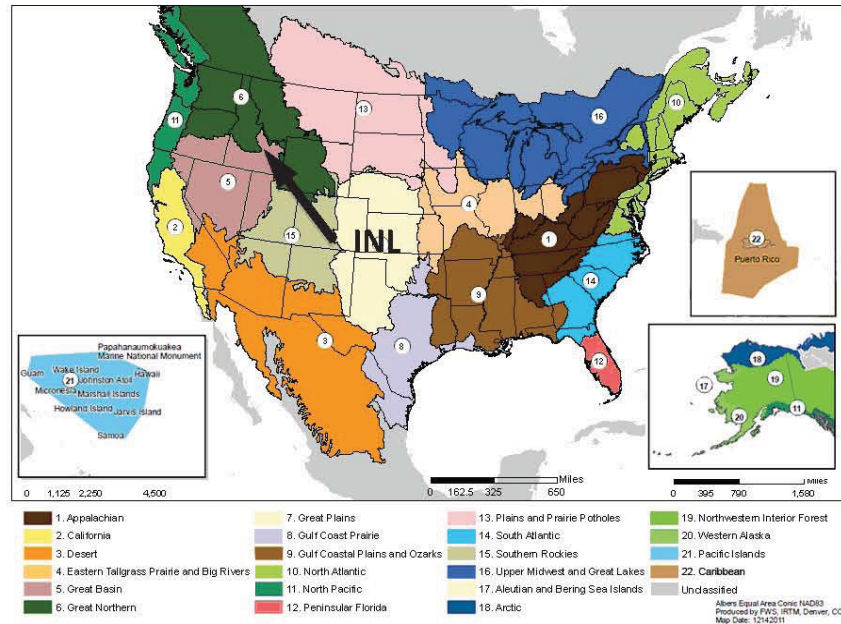


Figure 2. Major landscapes of the United States, as described by the U.S. Geological Survey (USGS).

10.3.2 Climate Impacts for the Southwest Region Applicable to INL

The USGCRP reports that annual average temperature over the Southwest region rose about 1.5°F over the past century, roughly comparable to the Northwest region. Projections of future temperature increase are also roughly comparable with those of the Northwest region. The Southwest region is anticipated to experience severe water shortages, due to large reductions in spring precipitation. INL is located in water basins fed by the Northwest water system, but is immediately adjacent to the Southwest region and has a similar arid landscape. Ecosystem, fire, and landscape impacts may be more akin to the Southwest region than the Northwest.

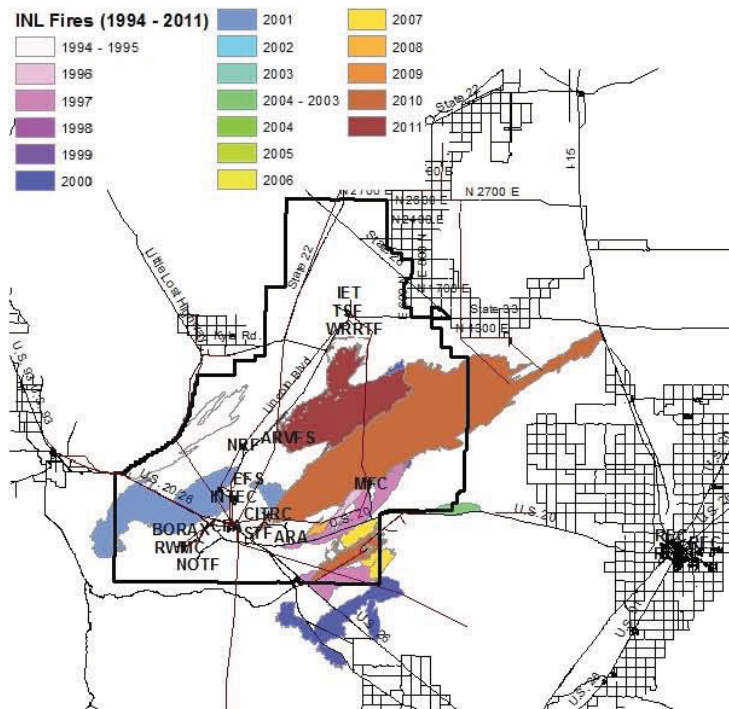


Figure 3. History of wildfire at INL since 1994.

USGCRP predicts that a combination of increasing temperature, drought, invasive species, and more frequent and severe wildfires will accelerate the transformation of the landscape in the Southwest region. Such change will threaten biological diversity, and could lead to large-scale transformation of the animal and plant species residing on INL property. This would alter the environmental basis for INL planning and operations, and may introduce new environmental threats. For example, USGS has projected that climate change in the Southwest would reduce perennial vegetation cover and result in increased dust storm activity in the future (Munson et. al., PNAS 2011). If the landscape of INL transforms toward one that is more reflective of north/central Nevada and Utah, then dust storms could become more frequent and more severe. With regard to wildfires, historical data show that wildfires regularly threaten INL infrastructure and that some of INL's largest fires have occurred in recent years (Figure 3). Recent studies conducted on the INL Site have helped develop new approaches for quantifying the extent of wildfire, dust transport, and landscape change; and have identified potential feedback cycles between these processes. There may be an opportunity to build upon the work to establish an interagency collaboration to help develop a better understanding of the feedbacks between climate change, wildfire, and landscape transformation.

10.3.3 Climate Impacts for the Great Plains Region Applicable to INL

USGCRP reports that, over the past century, temperature change in the Great Plains region has been roughly equivalent to that of the Northwest and Southwest regions. Projections of future temperature increase are also roughly comparable with those of the Northwest region. The region is expected to experience increases in the frequency and severity of drought, exacerbating strain on the region's water resources. Lack of water resources could reduce the generating capacity of coal-fired power plants in Wyoming during summer months, thereby reducing the amount of electricity available for INL use. Climate change is also expected to alter the landscape and ecosystem structure in key habitats, which

could lead to increased restrictions on air emissions, water use, and land use. These factors, combined with ongoing shifts in the region's population, could place greater strain on the region's energy grid and further reduce the amount of electricity available for export.

10.4 Actions to Fulfill DOE Climate Adaptation Objectives

INL controls access to a large swath of land that is located at the intersection of three USGCRP climate regions, and provides ready access to both pristine and developed land that is fed by a combination of managed water systems (Snake River) and unmanaged water systems (Salmon River). INL is also the only U.S. National Laboratory located in the Great Basin landscape, which is an environmentally sensitive area that has extensive renewable generation capacity. Thus, INL is well suited to host climate change adaptation research and demonstration activities that (a) help INL gain a better understanding of how climate change will impact human and environmental systems in the inter-mountain west, (b) test approaches to mitigating future impacts, and (c) provide leadership that will help the region and nation respond to this challenge. A strategy for achieving these goals is outlined in the following sections.

10.4.1 Goal 1: Improving our Understanding of Climate Impacts in INL's Region

INL is currently partnering in a number of regional efforts to improve our understanding of climate impacts on the region. Notable examples include:

- Providing a field study site for understanding relationships between fire, dust transport, and ecosystem change in the Great Basin landscape.
- Hosting the Mountain West Water Institute, which is a federal/state collaboration that provides the science, predictive tools, and technologies needed to help the region's water stewards and users rapidly and effectively assess, monitor, and proactively adapt to changes in resource conditions.
- Hosting a mirror site for the Northwest Knowledge Network (NKN), which is a data management system that provides storage, retrieval, and protection services across the life cycle of data. NKN serves researchers, educators, and the public specializing in cross-disciplinary data and its application to issues of note in the state and northwest region. NKN currently has 20 federal, state, and university partners, and provides data services for regional initiatives that include the Northwest Climate Science Center and the Fire Research and Management Exchange Systems (FRAMES).
- Actively collaborating with university peers supported by the Nation Science Foundation (NSF)-funded Idaho Experimental Program to Stimulate Competitive Research (EPSCoR) project, which is developing regional R&D capacity to improve our understanding of how climate change will impact water resources.

INL will fulfill the objectives of Goal 1 (i.e., Improve our Understanding of Climate Change) by expanding current involvement with these regional initiatives. INL actions to advance Goal 1 will focus on two outcomes:

1. Develop and implement R&D collaborations with regional universities and governmental agencies to understand how climate change impacts on regional fire risk, ecosystem function, and water resources will impact the delivery of energy and water services to both INL facilities and the regional community at-large.
2. Develop a collaborative R&D plan for how INL could function as a field research site to improve the laboratory's understanding of (a) how climate change will impact the ability of the Great Basin landscape to sustainably support regional economic and energy development, and (b) develop and test new monitoring and resource management technologies and strategies that could support climate change adaptive management.

The first step towards achieving these objectives would be for INL to host a regional scientific forum to define research needs and develop a research plan for how to meet these goals. This forum could be conducted as either a regional meeting at INL, hosted by MWWI; or by INL researchers hosting a special forum at a regional climate science meeting. The product of this effort would be a Strategic Research Plan that would be delivered to the leadership of all participating institutions and agencies (including DOE-SPO), and made available to the public. INL's ability to pursue this objective in FY 2013 is dependent on identifying a mechanism for funding the required travel and staff costs.

10.4.2 Goal 2: Assessing Climate Change Vulnerability and Risk at INL

Assessing climate vulnerability requires a strong understanding of the climate risks, their relative severity, and what time scale on which they are likely to operate. Thus, climate change vulnerability assessments will be updated regularly as the science advances and climate change impacts become more noticeable. Detailed INL-site vulnerability assessments will be made every 4 years, in the year following the issuance of the quadrennial USGCRP National Climate Assessment. In the interim years, the site vulnerability assessment will be updated to reflect new knowledge; and integrated into the INL SSP.

In FY 2013, INL will support Objective 2.2 by using the 2009 National Climate Assessment as the basis for conducting our first Climate Change Vulnerability Assessment. To achieve this outcome, INL will conduct two activities as funding is available:

1. Using the 2009 National Climate Assessment and the DOE High Level Analysis of Vulnerability to Climate Change as a basis, INL will develop a report that summarizes anticipated climate impacts to the Site, workforce, and community in the coming decade. This report will be written and reviewed in collaboration with regional experts.
2. Once this report is prepared, INL will present its results to site operations officials and conduct a vulnerability assessment. Options for mitigating vulnerabilities will also be discussed and assessed. The results from this risk and vulnerability assessment will then be published in an INL technical report, which will also be reviewed by regional experts.

These objectives can be met with current knowledge, gained through literature review and consultations with subject matter experts at regional universities and partner agencies. This work can proceed independently of efforts to support Goal 1. However, work advancing towards this goal will proceed synergistically with progress towards Goal 1 to the greatest extent practicable.

10.4.3 Goal 4: Improving Climate Resiliency at INL

Efforts to advance Goal 4 are limited by the lack of a site-specific climate vulnerability assessment. Site plans cannot be updated until a vulnerability assessment has been completed. Consequently, progress toward Objective 4.1 will proceed concomitantly with progress toward Objective 2.2. Once a vulnerability assessment has been completed and an action plan established, INL will track progress towards climate resiliency goals. INL will support progress toward Objective 4.2 through its partnering efforts conducted in support of Goal 1.

For the purposes of the INL SSP, the brief review of the 2009 USGCRP National Climate Assessment reveals five key areas of potential vulnerability. These are:

1. Increased potential for wildfire and associated risk to worker safety, INL operations, and INL infrastructure
2. Increased threats to worker safety through heat stress, dehydration, and exposure to disease and pests
3. Increased uncertainty in infrastructure planning and permitting due to the potential for long-term landscape change
4. Increased uncertainty regarding water availability to support INL Site operations

5. Increased risk of power disruptions during summer months, when water shortages could lead decreased production from the region's electricity facilities.

These potential vulnerabilities can be mitigated through existing INL safety, operations, and infrastructure planning processes. These five areas of potential vulnerability will provide the initial basis for FY 2013 efforts to (a) develop a detailed climate vulnerability assessment, and (b) enhance and/or establish regional partnerships that work to improve our understanding of climate change impacts and the viability of alternative technology and adaptive management responses.

10.5 Synergies with Climate Mitigation Efforts and Laboratory Mission

INL's mission is to provide science and technology solutions that help ensure the nation's energy security with safe, competitive, and sustainable energy systems and unique national and homeland security capabilities. INL achieves this mission by functioning as the pre-eminent nuclear energy laboratory with synergistic multi-program capabilities and partnerships. There are many synergies between INL's mission and the climate adaptation imperative, including:

- An improved understanding of how climate change will impact water availability, fire risk, and ecosystem function and how these factors could combine to impact nuclear facility design, siting, and operations.
- As above, but for renewable energy production facilities; with a focus on landscapes in the Great Basin and surrounding regions.
- As above, but with a focus on national and homeland security issues.
- Development and demonstration of environmental monitoring technologies that can help facilitate clean energy development by improving capabilities for real-time response of energy systems to environmental stimuli.
- Efforts to reduce the carbon footprint of INL operations and progress toward zero-carbon facilities provide opportunities to conduct demonstration projects that can show local and regional stakeholders how transitioning to clean, sustainable energy generation also improves climate resiliency.
- INL's network of regional partnerships provides a basis for educating regional stakeholders on their sustainable energy options, and developing mobile units that can travel throughout the region to demonstrate effective climate adaptation strategies.
- AMWTP has observed that with milder winters, potentially associated with the effects of climate change, AMWTP maintenance has consumed lower volumes of diesel and gasoline onsite. This reduction is credited to fuel that is normally necessary for powering heavy equipment associated with snow removal during harsh Idaho winters.
- The potential for warmer winters at INL suggests that many of the operations occurring in traditionally unconditioned spaces (the Transuranic Storage Area – Retrieval Enclosure [TSA-RE] and the AMWTP Type II modules) will result in reduced consumption of fossil fuels used for more inefficient area heating. This reduction may reduce the contribution of emissions at AMWTP toward the potential for anthropogenic climate change.

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Appendix A

Glossary

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Appendix A

Glossary

Alternative Fuel. A vehicle or equipment fuel that is either not petroleum based, or significantly reduces the petroleum content of the fuel. Biodiesel blends such as B20 (20% biodiesel) and Ethanol blends such as E-85 (85% Ethanol) are the more common alternative fuels. Compressed natural gas (CNG) and liquefied natural gas (LNG) are also recognized alternative fuels that are not a blended fuel.

Alternative Fuel Vehicle (AFV). Vehicles specially designed to run on an alternative fuel. They can be dedicated to a single alternative fuel such as LNG, or they can be dual fuel capable of operating on both alternative such as CNG or E-85 and gasoline. Diesel engine vehicles that can simply be operated on a biodiesel blend are usually not considered AFVs.

Commissioning. A process of ensuring that all building systems are installed and perform interactively according to the design intent, the systems are efficient and cost effective and meet the owner's operational needs, the installation is adequately documented, and the operators are adequately trained.

Commissioning Authority. The individual hired by, or responsible to, the building owner and is tasked with implementing the commissioning process for a new or existing building. The Commissioning Authority is typically responsible for all aspects of the commissioning process, leads and trains the commissioning team, and witnesses or verifies all system checks or inspections throughout the process. The Commissioning Authority has final jurisdiction for the entire commissioning process.

Continuous Commissioning. Continuous commissioning involves ongoing monitoring and testing of systems as part of a regular maintenance plan to ensure optimum performance and enhanced equipment longevity. Continuous commissioning can be at a system or a building level depending upon the requirements of the stakeholders.

Energy Efficiency. The ability of a building to minimize the amount of energy used for employee safety, health, and comfort. Energy efficiency also applies to the processes that are performed inside the building, which are not necessarily part of the physical structure. Energy efficiency improvements should always be measured by life-cycle cost effectiveness, and not by first cost or simple payback.

ESPC. Energy Savings Performance Contracts (ESPC) are projects that are developed, engineered, performed, and funded by an outside contractor called an Energy Services Contractor (ESCO). ESPCs are paid for through the energy savings derived from the project and are intended to be a no-cost turn-key process or project. The annual payments are made to the ESCo with funds that would have been distributed to the utility. ESPCs are especially useful when capital funding is not readily available. DOE sites can take advantage of the ESPC program, which provides pre-evaluated ESCos familiar with federal processes.

HVAC. Heating, ventilating, and/or air conditioning (cooling) systems in a building. HVAC systems include all components, controls, and distribution systems needed to deliver conditioned air to the desired point of use.

Indoor Environment. A building's indoor environment includes many factors including the quality of the air in and supplied to the building, temperature levels, and consistency throughout the building, amount of pollutants in the workspace, lighting levels, and quality, levels of unwanted sound, and amount of day lighting.

INL Site. All contractors and activities at the INL Site under the control of the DOE-ID Operations Office, but excludes the Naval Reactors Facility (NRF).

LEED™ Rating System. Leadership in Energy and Environmental Design (LEED™) is a tool for green building design to help design teams and owners determine green project goals, identify green design strategies, measure and monitor progress, and document success. The LEED™ Rating System was developed and is administered by the U.S. Green Building Council (USGBC), which is a national non-profit organization that includes representation from all aspects of the building industry. The LEED™ Rating System is a point system of five technical categories and four levels of certification: LEED™ Certified, Silver, Gold, and Platinum.

Low-Cost. Low Cost modifications or repairs may be performed during the commissioning process, but are typically implemented shortly after. Low-cost opportunities typically cost less than \$500 and can be accomplished in bundled groups.

No-Cost. Adjustments or modifications that can be made during the commissioning implementation phase by in-house crafts. These on-the-spot modifications are essentially no cost other than the time for the craft person to be available. No-cost adjustments should be maximized during the implementation phase.

Re-commissioning. Commissioning that is performed several years after a building, which was previously commissioned, has been in operation to ensure that the building and systems are meeting the original design requirements. Re-commissioning is typically used to identify and correct malfunctions in a building that occur as the building ages and to ensure continued indoor air quality, employee productivity, and energy efficiency. Re-commissioning can also be used to address changes in ownership, building use patterns, and operation and maintenance practices. A building's use and mission often change during the building's life and these changes necessitate the need for re-commissioning to ensure that the building is capable of efficiently meeting its new and/or evolving mission.

Retro-commissioning. Applying the commissioning process to a building that has never been commissioned. *Retro-commissioning* is sometimes referred to as "Existing Building Commissioning" and is used to compare the building's original design parameters and operational criteria with current design and operational requirements. Retro-commissioning determines if the building is capable of meeting its current mission needs and identifies modifications required to meet those needs. Retro-commissioning then identifies upgrades to the building that will enhance its energy efficiency, tenant comfort and productivity, and indoor air quality. Retro-commissioning as a best practice means using a whole building approach to ensure that the building is operating within well-defined criteria established by the building stakeholders.

Sustainability. The ability of a society to operate indefinitely into the future without depleting its resources. Sustainability includes concepts of green building design and construction, reuse and recycling of materials, reduced use of material and energy resources for building construction and operation, water conservation, and responsible stewardship of the environment adjacent to the building.

Appendix B

Excluded Buildings Self-Certification

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DOE BUILDING EXCLUSION
SELF-CERTIFICATION FORM
FY 2012

FROM: DOE Idaho Operations Office, Idaho National Laboratory Site
Lead Program Office is the Office of Nuclear Energy

TO: Sustainability Performance Office

DATE: November 19, 2012

SUBJECT: SELF-CERTIFICATION FORM FOR THE ENERGY INTENSITY
GOAL OF EISA 2007

Each building or group of buildings excluded under the criteria for a Part G or Part H exclusion is/are metered for energy consumption and their consumption is reported annually.

If any building has been excluded under the criteria for Part H for impracticability then all practicable energy and water conservation measures with a payback of less than 10 years have been installed. A justification statement that explains why process-dedicated energy in the facility may impact the ability to meet the goal has been provided in the FIMS Report 063.

I certify that the buildings listed on the Excluded Buildings List produced by FIMS as Report 063 dated 19 November 2012, for the Idaho National Laboratory Site meet the exclusion criteria in *Guidelines Establishing Criteria for Excluding Buildings* published by FEMP on January 27, 2006.

Teresa Perkins

DOE Site Office Official – printed name



DOE Site Office Official – Signature

November 19, 2012

Date

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INL Energy Manager
(208)526-2513
Ernest.Fossum@inl.gov

U.S. Department of Energy
Facilities Information Management System
Energy Consuming Excluded Buildings and Trailers List

11/19/2012

Program Office	NE	Site	06001	Idaho National Lab-Scoville	Property ID	Real Property Unique ID	Property Name	Exclusion Part	Property Type	Gross SQFT	Excluded SQFT
Justification Comments:					TRA-676	92397	RTC Fitness Center	G - Metered intensive loads	Building	2,146	2,146
The ATR and its three support facilities use 62% of the total Electricity consumed at the ATR Complex area. This building is one of four small incidental buildings that are metered with the four primary ATR Buildings. Energy use for these buildings is separately metered.											
					TRA-640	96650	Hazardous Chem Storage Bldg	G - Metered intensive loads	Building	1,891	1,891
The ATR and its three support facilities use 62% of the total Electricity consumed at the ATR Complex area. This building is one of four small incidental buildings that are metered with the four primary ATR Buildings. Energy use for these buildings is separately metered.											
					TRA-674	96652	Diesel Generator Bldg	G - Metered intensive loads	Building	704	704
Advanced Test Reactor (ATR) process energy use. The ATR and its three support facilities use 62% of the total Electricity consumed at the ATR Complex area. This building is one of the four primary ATR Buildings. Energy use for these buildings is separately metered.											
					TRA-673	96141	Reactor Mockup Facility	G - Metered intensive loads	Building	1,188	1,188
The ATR and its three support facilities use 62% of the total Electricity consumed at the ATR Complex area. This building is one of four small incidental buildings that are metered with the four primary ATR Buildings. Energy use for these buildings is separately metered.											
					TRA-670	96138	ATR Reactor Building	G - Metered intensive loads	Building	130,213	130,213
Advanced Test Reactor (ATR) process energy use. The ATR and its three support facilities use 62% of the total Electricity consumed at the ATR Complex area. This building is one of the four primary ATR Buildings. Energy use for these buildings is separately metered.											
					TRA-671	96139	ATR Cooling Tower Pumphouse	G - Metered intensive loads	Building	3,568	3,568
Advanced Test Reactor (ATR) process energy use. The ATR and its three support facilities use 62% of the total Electricity consumed at the ATR Complex area. This building is one of the four primary ATR Buildings. Energy use for these buildings is separately metered.											

This report qualifies DOE Owned, DOE Leased, and Contractor Leased buildings and trailers where the Energy Consuming Metered Process (Excluded) Facilities gsft is greater than zero.

U.S. Department of Energy
Facilities Information Management System
Energy Consuming Excluded Buildings and Trailers List

Program Office	NE	Site	06001	Idaho National Lab-Scoville	Property ID	Real Property Unique ID	Property Name	Exclusion Part	Property Type	Gross SQFT	Excluded SQFT
Justification Comments:											
TRA-689			131170		Dynamic Learning Facility		G - Metered intensive loads	Building		5,470	5,470
The ATR and its three support facilities use 62% of the total Electricity consumed at the ATR Complex area. This building is one of four small incidental buildings that are metered with the four primary ATR Buildings. Energy use for these buildings is separately metered.											
TRA-672			96140		Pump House & Well #4		G - Metered intensive loads	Building		404	404
Advanced Test Reactor (ATR) process energy use. The ATR and its three support facilities use 62% of the total Electricity consumed at the ATR Complex area. This building is one of the four primary ATR Buildings. Energy use for these buildings is separately metered.											

This report qualifies DOE Owned, DOE Leased, and Contractor Leased buildings and trailers where the Energy Consuming Metered Process (Excluded) Facilities gsft is greater than zero.

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Appendix C

Consolidated Energy Data Report (CEDR)

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CEDR Content

The Consolidated Energy Data Report (CEDR) consists of 23 worksheets that should be completed by each site, as applicable, and included as part each site's SSP in a MS Excel electronic format. The CEDR is due to the SPO no later than December 7th.

Worksheet	Overview	Action
1.1 Content	Stand-alone overview of the CEDR tabs.	None.
1.2 Performance Summary	Summary table of goals performance.	None.
1.3 Factors and Drop-down Keys	Reference tab containing all factors and drop-down menus information for all tabs.	None.
2.1 Funds, Meters, Training	Collects information on energy and water spending, and metering status.	If applicable, complete cells with blue text.
3.1 Energy & Water	Collects quarterly consumption and associated cost information for facilities, non-fleet vehicles and equipment, and fully serviced leases (new, voluntary in FY 2012) for each fiscal year since FY 2003. Do not report on-site generated and purchased renewable energy or on-site generated non-renewable energy in this tab.	Enter FY 2012 consumption and cost data and review historical information for accuracy.
3.2a Operating On-Site Renewables	Houses the list of active renewable energy systems at DOE sites to track progress towards renewable energy requirements in EPCAct2005 and DOE O 436.1. Also used towards developing the site's GHG inventory.	Review pre-populated data and update as necessary.
3.2b Purchased Renewables	Collects renewable energy purchases to track progress towards renewable energy requirements in EPCAct 2005 and DOE O 436.1. Also used towards developing the site's GHG inventory.	Review pre-populated data and update with FY 2012 purchased data.
3.3 Conservation & RE Measures	Tracks planned energy and water conservation measures, in addition to future renewable energy systems. Also used to project future energy/water consumption along with performance towards goals.	Review pre-populated data and update as necessary.
3.4 Bldg Inventory Changes	Tracks demolition and new construction projects along with construction requirements for meeting HPSB, EPCAct 2005 30 percent better than ASHRAE, and stormwater design. Also used to project future energy/water consumption.	Review pre-populated data and update as necessary.
4.1 Source Energy Savings Credit	Part of the Annual Energy Report to adjust site energy use accounting from projects — especially combined heat and power — that would change the accounting of site vs. source energy.	Complete worksheet, if applicable.
5.1 Data Centers	Inventory of DOE data centers along with basic energy management metrics.	Complete worksheet, if not using DOEGRIT.
6.1 Mixed Refrigerants	Collects and calculates fugitive emission data for refrigerants and fluorinated gases.	Review pre-populated data and update with FY 2012 emissions.
6.2 Fugitive F-gases	Collects and calculates fugitive emission data for fluorinated gases and other fugitive emissions.	Review pre-populated data and update with FY 2012 emissions.
6.3 Industrial Process	Collects and calculates GHG emission data for industrial process by process.	Review pre-populated data and update with FY 2012 emissions.
7.1a On-Site Wastewater	Collects and calculates fugitive emissions data for on-site wastewater treatment.	Review pre-populated data and update with FY 2012 emissions.
7.1b Contr. Wastewater	Collects and calculates GHG emissions resulting from contracted off-site wastewater treatment, excluding electricity.	Review pre-populated data and update with FY 2012 emissions.
8.1 Air Bus Travel	Collects and calculates emissions for prime contractor employee business air travel.	Review pre-populated data and update with FY 2012 emissions.
8.2 Ground Bus Travel	Collects and calculates emissions for prime contractor employee business ground travel.	Review pre-populated data and update with FY 2012 emissions.
8.3 Commuter Travel	Collects and calculates emissions for prime contractor employee commuting.	Review pre-populated data and update with FY 2012 emissions.
9.1a On-Site Landfill (Optional)	Calculates emissions for on-site landfill; data should be consistent with PPTRS entry.	Optional – Based on PPTRS data entry.
9.1b Off-Site MSW (Optional)	Calculates emissions for contracted/off-site municipal solid waste disposal; data should be consistent with PPTRS entry.	Optional – Based on PPTRS data entry.
10 Fleet Fuel (Optional)	Calculates emissions for fleet fuel consumption based on FAST data.	Optional - Download and paste FAST data.
11 Covered Facilities	List of covered facilities with anticipated evaluation dates and type/level.	Select covered facilities and complete associated data columns.

Performance Summary

The table below summarized performance for several sustainability goals based on information reported in this workbook. Please note, Scope 1 & 2 GHG emissions do not include emissions from on-site and contracted landfill as these are to be reported in PPTRS.

SSPP Goal #	DOE Goal	Baseline	Current FY	Performance Status
1.1	28% Scope 1 & 2 GHG reduction by FY 2020 from a FY 2008 baseline	141,102.9	112,484.3	-20.3%
1.2	13% Scope 3 GHG reduction by FY 2020 from a FY 2008 baseline	28,853.7	26,760.9	-7.3%
2.1	30% energy intensity reduction by FY 2015 from a FY 2003 baseline (Note: Estimates without REC credit)	183,011	157,690	-13.8%
	Goal Energy (10 ⁶ Btu)	1,023,492	856,316	
	Goal Square Footage (x1,000)	5,593	5,430	
2.3a	Individual buildings or processes metering for 90% of electricity (by October 1, 2012)		49.0%	49.0%
2.3b	Individual buildings or processes metering for 90% of natural gas (by October 1, 2015)		100.0%	100.0%
2.3c	Individual buildings or processes metering for 90% of steam (by October 1, 2015)		0.0%	0.0%
2.3d	Individual buildings or processes metering for 90% of chilled water (by October 1, 2015)		0.0%	0.0%
2.7	7.5% of annual electricity consumption from renewable sources by FY 2013 and thereafter (5% FY 2010 – 2012)	221,512	22,000	9.9%
3.1	2% annual reduction in fleet petroleum consumption by FY 2020 relative to a FY 2005 baseline (Note: Estimates without biodiesel credit)	938,197	747,777	-20.3%
3.2	10% annual increase in fleet alternative fuel consumption by FY 2015 relative to a FY 2005 baseline	76,436	194,429	154.4%
4.1	26% water intensity reduction by FY 2020 from a FY 2007 baseline	173.9	154.0	-11.4%
	Potable Water Consumption (10 ⁶ Gal)	1,051	859	
	Total Gross Square Footage (x1,000)	6,043	5,576	
4.2	20% water consumption reduction of industrial, landscaping, and agricultural (ILA) water by FY 2020 from a FY 2010 baseline	0	0	0.0%

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Energy Management Data Report

Requirement(s) See tables

Instructions If applicable, complete cells with blue text and highlight the cell. The information requested is for completing DOE's Annual Energy Report.

Source Site/Lab All data reviewed, updated, and is correct for FY 2013 CEDR Report - Ernest Fossum 11/26/12

ENERGY EFFICIENCY IMPROVEMENTS AND FUNDING

1-1. E.O. 13514/OMB Circular A-11 Direct Agency Obligations

	FY 2012		Projected FY 2013		Projected FY 2014	
		(Thou. \$)		(Thou. \$)		(Thou. \$)
Direct obligations for facility energy efficiency improvements, including facility surveys/audits		\$830.0		\$1,200.0		\$1,000.0
Estimated annual energy savings anticipated from obligations (Million BTU)	5,744.2	\$71.7	6,500.0	\$120.0	6,000.0	\$100.0
Estimated annual water savings anticipated from obligations (Thousands Gal)	347.0	\$0.9	5,000.0	\$13.4	0.0	\$0.0

Note: If funding is available in FY 2013 and FY 2014 for INL Strategic Investment Funded projects. (EF)

1-2. E.O. 13514/OMB Circular A-11 Awarded Energy Savings Performance Contracts (ESPCs)

	Annual savings (10 ⁶ BTU)	(Number/Thou. \$)
Number of ESPC Task/Delivery Orders awarded in fiscal year & annual energy (Million BTU) savings	0.0	0.0
Investment value of ESPC Task/Delivery Orders awarded in fiscal year		\$0.0
Amount privately financed under ESPC Task/Delivery Orders awarded in fiscal year		\$0.0
Cumulative guaranteed cost savings of ESPCs awarded in fiscal year relative to the baseline spending		\$0.0
Total contract award value of ESPCs awarded in fiscal year (sum of contractor payments for debt repayment, M&V, and other negotiated performance period services)		\$0.0
Total payments made to all ESPC contractors in fiscal year		\$2,267.8

1-3. E.O. 13514/OMB Circular A-11 Awarded Utility Energy Services Contracts (UESCs)

	Annual savings (10 ⁶ BTU)	(Number/Thou. \$)
Number of UESC Task/Delivery Orders awarded in fiscal year & annual energy (Million BTU) savings	0.0	0.0
Investment value of UESC Task/Delivery Orders awarded in fiscal year		\$0.0
Amount privately financed under UESC Task/Delivery Orders awarded in fiscal year		\$0.0
Cumulative cost savings of UESCs awarded in fiscal year relative to the baseline spending		\$0.0
Total contract award value of UESCs awarded in fiscal year (sum of payments for debt repayment and other negotiated performance period services)		\$0.0
Total payments made to all UESC contractors in fiscal year		\$0.0

1-4. EPA 1992 Training

	(Number)	(Thou. \$)
Number of personnel trained in FY 2012/Expenditure	2	\$47.6

Energy Management Data Report

Requirement(s) See tables

Instructions If applicable, complete cells with blue text and highlight the cell. The information requested is for completing DOE's Annual Energy Report.

Source Site/Lab All data reviewed, updated, and is correct for FY 2013 CEDR Report - Ernest Fossum 11/26/12

1-5a. EPAc 2005 Metering Of Electricity Use

(Note: If a building has an advanced and a standard meter, only account for the advanced meter. If a building has multiple meters, ensure the utility metered is accounted/reported only once)

Fiscal Year	# of "Appropriate" Buildings Per EPAc 2005	Standard Meters		Advanced Meters			Total		Cumulative % of "Appropriate" Buildings Metered	Total % of Electricity Metered
		# of Buildings with Standard Meters	Estimated Amount of Purchased Electricity Metered (kWh/Yr)	Estimated Amount of On-Site Generate Electricity Metered (kWh/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Electricity Metered (kWh/Yr)	Estimated Amount of On-Site Generate Electricity Metered (kWh/Yr)	# of Appropriate Buildings with Dedicated Meters		
2012 Report	69	41	59,987,601	0	39	48,721,248	0	80.0	115.9%	49.0%
2013 Planned	70	25	42,043,647	0	124	117,050,073	0	149.0	212.9%	70.0%
2014 Planned	71	25	42,043,647	0	125	124,471,361	0	150.0	211.3%	71.0%
2015 Planned	71	25	42,043,647	0	125	124,471,361	0	150.0	211.3%	71.0%

Note: The increase in meters installed in FY 2013 is wholly dependent upon funding and the decision to meter many NE buildings to compensate for EM buildings not metered - EF 11/27/12

1-5b. EISA 2007 Metering Of Natural Gas Use

(Note: If a building has an advanced and a standard meter, only account for the advanced meter. If a building has multiple meters, ensure the utility metered is accounted/reported only once)

Fiscal Year	# of "Appropriate" Buildings Per EPAc 2005	Standard Meters		Advanced Meters			Total		Cumulative % of "Appropriate" Buildings Metered	Total % of Natural Gas Metered
		# of Buildings with Standard Meters	Estimated Amount of Purchased Natural Gas Metered (CF/Yr)	Estimated Amount of On-Site Generate Natural Gas Metered (CF/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Natural Gas Metered (CF/Yr)	Estimated Amount of On-Site Generate Natural Gas Metered (CF/Yr)	# of Appropriate Buildings with Dedicated Meters		
2012 Report	31	31	25,500,000,000	0	0	0	0	31.0	100.0%	100.0%
2013 Planned	32	32	26,000,000,000	0	0	0	0	32.0	100.0%	100.0%
2014 Planned	33	33	26,500,000,000	0	0	0	0	33.0	100.0%	100.0%
2015 Planned	33	33	26,500,000,000	0	0	0	0	33.0	100.0%	100.0%

1-5c. EISA 2007 Metering Of Steam Use

(Note: If a building has an advanced and a standard meter, only account for the advanced meter. If a building has multiple meters, ensure the utility metered is accounted/reported only once)

Fiscal Year	# of "Appropriate" Buildings Per EPAc 2005	Standard Meters		Advanced Meters			Total		Cumulative % of "Appropriate" Buildings Metered	Total % of Steam Metered
		# of Buildings with Standard Meters	Estimated Amount of Purchased Steam Metered (Btu/Yr)	Estimated Amount of On-Site Generate Steam Metered (Btu/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Steam Metered (Btu/Yr)	Estimated Amount of On-Site Generate Steam Metered (Btu/Yr)	# of Appropriate Buildings with Dedicated Meters		
2012 Report	0	0	0	0	0	0	0	0.0	#DIV/0!	0.0%
2013 Planned	0	0	0	0	0	0	0	0.0	#DIV/0!	0.0%
2014 Planned	0	0	0	0	0	0	0	0.0	#DIV/0!	0.0%
2015 Planned	0	0	0	0	0	0	0	0.0	#DIV/0!	0.0%

1-5d. DOE O 436.1 & SSPP Metering Of Chilled Water Use

(Note: If a building has an advanced and a standard meter, only account for the advanced meter. If a building has multiple meters, ensure the utility metered is accounted/reported only once)

Fiscal Year	# of "Appropriate" Buildings Per EPAc 2005	Standard Meters		Advanced Meters			Total		Cumulative % of "Appropriate" Buildings Metered	Total % of Chilled Water Metered
		# of Buildings with Standard Meters	Estimated Amount of Purchased Chilled Water Metered (Btu/Yr)	Estimated Amount of On-Site Generate Chilled Water Metered (Btu/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Chilled Water Metered (Btu/Yr)	Estimated Amount of On-Site Generate Chilled Water Metered (Btu/Yr)	# of Appropriate Buildings with Dedicated Meters		
2012 Report	0	0	0	0	0	0	0	0.0	#DIV/0!	0.0%
2013 Planned	0	0	0	0	0	0	0	0.0	#DIV/0!	0.0%
2014 Planned	0	0	0	0	0	0	0	0.0	#DIV/0!	0.0%
2015 Planned	0	0	0	0	0	0	0	0.0	#DIV/0!	0.0%

1-5e. Water Management Best Practice Metering Of Water Use

(Note: If a building has an advanced and a standard meter, only account for the advanced meter. If a building has multiple meters, ensure the utility metered is accounted/reported only once)

Fiscal Year	# of "Appropriate" Buildings Per EPAc 2005	Standard Meters		Advanced Meters			Total		Cumulative % of "Appropriate" Buildings Metered	Total % of Water Metered
		# of Buildings with Standard Meters	Estimated Amount of Purchased Water Metered (Gal/Yr)	Estimated Amount of On-Site Captured Water Metered (Gal/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Water Metered (Gal/Yr)	Estimated Amount of On-Site Captured Water Metered (Gal/Yr)	# of Appropriate Buildings with Dedicated Meters		
2012 Report	16	16	40,000,000	0	0	0	0	16.0	100.0%	4.7%
2013 Planned	17	17	46,000,000	0	0	0	0	17.0	100.0%	5.4%
2014 Planned	18	18	52,000,000	0	0	0	0	18.0	100.0%	6.1%
2015 Planned	18	18	52,000,000	0	0	0	0	18.0	100.0%	6.1%

Facilities Utility/Fuel Consumption and Cost

Requirements: NECA, EPCA 2007, DOE 436.1, E.O. 13514

Instructions: Provide FY 2012 quarterly consumption and associated cost information for facilities, non-fleet vehicles and equipment, and fully serviced leases (new, voluntary in FY 2012) by utility/fuel type and address SPO requests. On-site nonrenewable energy should not be reported in this tab. To receive appropriate credit for netting of on-site generated non-renewable energy, complete the "Total % of Utility/Motors" column in tab 2.1. On-site generated and purchased renewable energy should be reported in tabs 2.2a and 2.2b, respectively. FY 2012 square footage should be estimated based on EIMS reports 008, 047, and 063. The SPO will update estimated square footages, if needed, based on the EIMS snapshot in mid-November. If historical data is updated please be sure to address this in your SST narrative, highlight the cell, and note the change in the "Additional Information" column.

Source: Site/Lab All data reviewed, updated, and is correct for FY 2013 CEDR Report - Ernest Fossam 11/14/12

Utility/Fuel Consumption and Cost										Notes				Estimated GHG Emissions			
PSO	Site #	Site	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU's 10 ⁶	Cost (1,000 \$)	\$/Unit	Main Site Zip Code	Additional Information	SPO Notes	Scope	Additional GHG Emissions, MCO ₂ e	Scope 2 T&D Emissions, MCO ₂ e
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2003	1	6,037.139	22,645.918	\$438.171	\$ 0.07	83415		2	2,731.359	0.000	179,917
NE	602	INL-1 Buildings	LPG	LPG	1,000 Gallons	2003	1	0.000	0.000	\$0.000	NA	83415		1	0.000	0.000	0.000
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2003	1	8,085.839	8,312.242	\$46.117	\$ 0.01	83415		1	441.147	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2003	2	6,461.904	22,048.016	\$430.638	\$ 0.07	83415		2	2,659.245	0.000	175,167
NE	602	INL-1 Buildings	LPG	LPG	1,000 Gallons	2003	2	0.000	0.000	\$0.000	NA	83415		1	0.000	0.000	0.000
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2003	2	6,379.340	6,455.162	\$35.962	\$ 0.01	83415		1	342.588	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2003	3	6,500.997	22,181.402	\$424.911	\$ 0.07	83415		2	2,675.333	0.000	176,227
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2003	3	1,698.060	1,745.606	\$10.643	\$ 0.01	83415		1	92.643	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2003	4	6,852.515	23,380.781	\$444.413	\$ 0.06	83415		2	2,819.992	0.000	185,756
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2003	4	492.338	506.123	\$4.298	\$ 0.01	83415		1	26.861	0.000	0.000
NE	602	INL-1 Buildings	Square Feet	Square Feet	1,000 Square Feet	2003	4	1,127.600			\$ -	83415		NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2004	1	6,438.419	21,967.886	\$418.629	\$ 0.07	83415		2	2,649.581	0.000	174,531
NE	602	INL-1 Buildings	LPG	LPG	1,000 Gallons	2004	1	0.006	0.532	\$0.005	\$ 0.83	83415		1	0.035	0.000	0.000
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2004	1	7,929.292	8,151.312	\$62.401	\$ 0.01	83415		1	432.606	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2004	2	6,487.637	22,135.817	\$425.627	\$ 0.07	83415		2	2,669.835	0.000	175,865
NE	602	INL-1 Buildings	LPG	LPG	1,000 Gallons	2004	2	0.000	0.000	\$0.000	NA	83415		1	0.000	0.000	0.000
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2004	2	8,291.368	8,626.326	\$66.310	\$ 0.01	83415		1	457.816	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2004	3	6,303.397	21,165.991	\$408.343	\$ 0.07	83415		2	2,552.863	0.000	168,160
NE	602	INL-1 Buildings	LPG	LPG	1,000 Gallons	2004	3	0.013	1.166	\$0.018	\$ 1.38	83415		1	0.076	0.000	0.000
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2004	3	1,737.245	1,783.888	\$14.814	\$ 0.01	83415		1	94.781	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2004	4	6,533.058	22,290.794	\$420.782	\$ 0.06	83415		2	2,688.427	0.000	177,096
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2004	4	589.525	606.032	\$5.635	\$ 0.01	83415		1	32.163	0.000	0.000
NE	602	INL-1 Buildings	Square Feet	Square Feet	1,000 Square Feet	2004	4	1,050.646			\$ -	83415		NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2005	1	6,539.291	22,312.061	\$424.109	\$ 0.06	83415		2	2,691.092	0.000	177,265
NE	602	INL-1 Buildings	LPG	LPG	1,000 Gallons	2005	1	0.006	0.561	\$0.008	\$ 1.38	83415		1	0.035	0.000	0.000
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2005	1	6,950.145	7,144.749	\$61.116	\$ 0.01	83415		1	379.186	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2005	2	6,784.907	23,150.103	\$425.909	\$ 0.06	83415		2	2,792.170	0.000	183,923
NE	602	INL-1 Buildings	LPG	LPG	1,000 Gallons	2005	2	0.010	0.892	\$0.012	\$ 1.28	83415		1	0.056	0.000	0.000
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2005	2	0.097	0.100	\$0.124	\$ 1.28	83415		1	0.005	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2005	3	6,988.105	21,796.214	\$389.186	\$ 0.06	83415		2	2,638.575	0.000	173,167
NE	602	INL-1 Buildings	LPG	LPG	1,000 Gallons	2005	3	0.003	0.294	\$0.004	\$ 1.34	83415		1	0.019	0.000	0.000
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2005	3	2,819.108	2,898.043	\$26.042	\$ 0.01	83415		1	153.805	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2005	4	6,693.684	22,838.850	\$403.783	\$ 0.06	83415		2	2,744.629	0.000	181,450
NE	602	INL-1 Buildings	Fuel Oil	Fuel Oil	1,000 Gallons	2005	4	0.000	0.000	\$0.000	NA	83415		1	0.000	0.000	0.000
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2005	4	640.834	658.777	\$6.385	\$ 0.01	83415		1	34.963	0.000	0.000
NE	602	INL-1 Buildings	Square Feet	Square Feet	1,000 Square Feet	2005	4	1,070.843			\$ -	83415		NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2006	1	6,817.336	23,260.750	\$418.313	\$ 0.06	83415		2	2,895.515	0.000	184,802
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2006	1	7,106.305	7,305.282	\$80.389	\$ 0.01	83415		1	387.706	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2006	2	6,931.356	23,649.787	\$423.860	\$ 0.06	83415		2	2,832.437	0.000	187,893
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2006	2	7,476.916	7,686.270	\$85.079	\$ 0.01	83415		1	407.926	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Electricity	Megawatt Hour	2006	3	6,681.166	22,796.138	\$385.866	\$ 0.06	83415		2	2,749.478	0.000	181,111
NE	602	INL-1 Buildings	LPG	LPG	1,000 Gallons	2006	3	0.000	0.000	\$0.000	NA	83415		1	0.000	0.000	0.000
NE	602	INL-1 Buildings	Natural Gas	Natural Gas	1,000 Cubic Feet	2006	3	1,213.579	1,247.559	\$14.526	\$ 0.01	83415		1	66.210	0.000	0.000

Utility/Fuel Consumption and Cost										Notes				Estimated GHG Emissions			
PRO	Site #	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU x 10 ⁶	Cost (1,000 \$)	ST Unit	Main Site Zip Code	Additional Information	SFO Notes	Scope	Anthropogenic MtCO ₂ e	Biogenic MtCO ₂ e	Scope 3 - T&D Loss, MtCO ₂ e
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2006	4	6,909.631	23,575.661	\$387.485	\$ 0.06	83415			2	2,843.497	0.000	187,304
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2006	4	749.952	770.951	\$8.921	\$ -	83415			1	40.916	0.000	0.000
NE	602	INL-1 Buildings	Square Feet	1,000 Square Feet	2006	4	1,129.437				83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2007	1	7,145.328	24,379.893	\$402.385	\$ 0.06	83415			2	2,940.497	0.000	193,693
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2007	1	8,561.309	8,595.426	\$91.646	\$ 0.01	83415			1	456.176	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2007	1	9.708		\$20.183	\$ 2.08	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2007	2	7,706.360	26,294.100	\$425.507	\$ 0.06	83415			2	3,171.372	0.000	208,901
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2007	2	9,667.119	9,697.798	\$104.053	\$ 0.01	83415			1	537.419	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2007	2	7.839		\$17.043	\$ 2.17	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2007	3	7,511.078	25,631.210	\$384.883	\$ 0.05	83415			2	3,091.420	0.000	203,635
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2007	3	1,969.816	2,045.531	\$28.836	\$ 0.01	83415			1	108.560	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2007	3	12.839		\$26.663	\$ 2.08	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2007	4	7,826.279	26,703.264	\$397.223	\$ 0.05	83415			2	3,220.722	0.000	212,152
NE	602	INL-1 Buildings	Fuel Oil	1,000 Gallons	2007	4	2.516	347.208	\$6.085	\$ 2.42	83415			1	25.766	0.000	0.000
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2007	4	823.472	846.529	\$9.264	\$ -	83415			1	44.927	0.000	0.000
NE	602	INL-1 Buildings	Square Feet	1,000 Square Feet	2007	4	1,203.864				83415			NA	0.000	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2007	4	15.458		\$31.899	\$ 2.05	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2008	1	8,123.346	27,716.857	\$431.062	\$ 0.05	83415			2	3,343.973	0.000	220,305
NE	602	INL-1 Buildings	LPG	1,000 Gallons	2008	1	0.199	18.308	\$0.389	\$ 1.95	83415			1	1.158	0.000	0.000
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2008	1	9,156.276	9,412.652	\$94.883	\$ 0.01	83415			1	499.548	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2008	1	13.325		\$20.173	\$ 1.51	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2008	2	8,414.602	28,710.622	\$446.768	\$ 0.05	83415			2	3,462.833	0.000	228,100
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2008	2	11,468.432	11,789.569	\$119.338	\$ 0.01	83415			1	625.666	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2008	2	13.151		\$19.829	\$ 1.51	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2008	3	8,116.047	27,691.952	\$414.042	\$ 0.05	83415			2	3,339.969	0.000	220,007
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2008	3	2,334.918	2,400.296	\$24.363	\$ 0.01	83415			1	127.388	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2008	3	17.093		\$26.341	\$ 1.54	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2008	4	9,006.621	30,730.591	\$440.082	\$ 0.05	83415			2	3,706.464	0.000	244,149
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2008	4	1,693.238	1,650.185	\$17.826	\$ 0.01	83415			1	87.579	0.000	0.000
NE	602	INL-1 Buildings	Square Feet	1,000 Square Feet	2008	4	1,204.662			\$ -	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2008	4	27.159		\$42.678	\$ 1.57	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2009	1	8,458.365	28,859.941	\$421.007	\$ 0.05	83415			2	3,480.842	0.000	229,287
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2009	1	11,292.629	11,608.823	\$122.084	\$ 0.01	83415			1	616.103	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2009	1	12.390		\$24.600	\$ 1.99	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2009	2	8,432.430	28,771.451	\$423.732	\$ 0.05	83415			2	3,470.169	0.000	228,584
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2009	2	11,877.595	12,210.168	\$125.778	\$ 0.01	83415			1	648.018	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2009	2	11.649		\$22.987	\$ 1.97	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2009	3	8,085.418	27,587.446	\$401.243	\$ 0.05	83415			2	3,327.365	0.000	219,177
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2009	3	2,415.713	2,483.353	\$26.849	\$ 0.01	83415			1	131.797	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2009	3	15.041		\$32.225	\$ 2.14	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2009	4	8,624.728	29,427.572	\$441.175	\$ 0.05	83415			2	3,549.305	0.000	233,796
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2009	4	1,886.322	1,599.139	\$20.740	\$ 0.01	83415			1	102.914	0.000	0.000
NE	602	INL-1 Buildings	Square Feet	1,000 Square Feet	2009	4	1,317.096			\$ -	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2009	4	20.168		\$42.856	\$ 2.12	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2010	1	8,848.594	30,191.403	\$453.623	\$ 0.05	83415			2	3,641.432	0.000	239,865
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2010	1	11,884.772	12,217.546	\$97.469	\$ 0.01	83415			1	648.410	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2010	1	10.791		\$21.809	\$ 2.02	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2010	2	8,293.496	28,297.408	\$452.090	\$ 0.05	83415			2	3,412.994	0.000	224,817
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2010	2	10,851.112	11,155.046	\$90.803	\$ 0.01	83415			1	592.021	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2010	2	10.101		\$20.370	\$ 2.02	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2010	3	8,501.971	29,008.725	\$468.133	\$ 0.06	83415			2	3,498.787	0.000	230,469

Utility/Fuel Consumption and Cost										Notes			Estimated GHG Emissions				
PSO	Site #	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU x 10 ⁶	Cost (1,000 \$)	\$/Unit	Main Site Zip Code	Additional Information	SPO Notes	Scope	Anthropogenic MtCO ₂ e	Biogenic MtCO ₂ e	Scope 3 - T&D Loss, MtCO ₂ e
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2010	3	3,276,528	3,368,271	\$29,092	\$ 0.01	83415			1	178,761	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2010	3	15,596		\$32,641	\$ 2.12	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2010	4	9,047,672	30,870,657	\$464,488	\$ 0.05	83415			2	3,723,358	0.000	245,261
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2010	4	1,018,332	1,046,845	\$9,177	\$ 0.01	83415			1	55,558	0.000	0.000
NE	602	INL-1 Buildings	Square Feet	1,000 Square Feet	2010	4	1,315,720		\$ -	-	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2011	4	22,119		\$48,192	\$ 2.18	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2011	1	8,794,955	30,004,974	\$456,210	\$ 0.05	83415			2	3,284,453	0.000	216,350
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2011	1	12,749,273	13,106,253	\$104,802	\$ 0.01	83415			1	695,575	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2011	1	8,450		\$22,038	\$ 2.61	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2011	2	8,913,188	30,411,797	\$469,823	\$ 0.05	83415			2	3,328,986	0.000	219,284
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2011	2	12,464,016	12,813,068	\$103,073	\$ 0.01	83415			1	680,012	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2011	2	7,408		\$18,620	\$ 2.51	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2011	3	8,718,650	29,748,034	\$455,762	\$ 0.05	83415			2	3,256,328	0.000	214,498
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2011	3	3,677,595	3,780,568	\$32,174	\$ 0.01	83415			1	200,642	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2011	3	11,526		\$32,635	\$ 2.83	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2011	4	9,678,327	33,022,452	\$502,896	\$ 0.05	83415			2	3,614,757	0.000	238,108
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2011	4	871,193	895,586	\$7,799	\$ 0.01	83415			1	47,531	0.000	0.000
NE	602	INL-1 Buildings	Square Feet	1,000 Square Feet	2011	4	1,315,510		\$ -	-	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2011	4	17,367		\$42,337	\$ 2.44	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2012	1	9,189,703	31,345,267	\$473,817	\$ 0.05	83415			2	3,432,261	0.000	226,886
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2012	1	11,907,662	12,241,077	\$98,484	\$ 0.01	83415			1	649,658	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2012	1	6,751		\$17,396	\$ 2.58	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2012	2	9,454,203	32,247,741	\$484,113	\$ 0.05	83415			2	3,531,049	0.000	232,594
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2012	2	10,551,794	10,847,244	\$77,613	\$ 0.01	83415			1	575,685	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2012	2	6,819		\$18,474	\$ 2.71	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2012	3	8,803,660	30,038,088	\$454,659	\$ 0.05	83415			2	3,288,078	0.000	216,589
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2012	3	2,165,567	2,226,203	\$15,596	\$ 0.01	83415			1	118,149	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2012	3	13,892		\$37,430	\$ 2.69	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	Electricity	Megawatt Hour	2012	4	9,268,704	31,624,818	\$471,172	\$ 0.05	83415			2	3,461,767	0.000	228,030
NE	602	INL-1 Buildings	Natural Gas	1,000 Cubic Feet	2012	4	896,702	921,810	\$6,846	\$ 0.01	83415			1	48,922	0.000	0.000
NE	602	INL-1 Buildings	Square Feet	1,000 Square Feet	2012	4	1,299,958		\$ -	-	83415			NA	0.000	0.000	0.000
NE	602	INL-1 Buildings	LPG	1,000 Gallons	2003	2	0.917	84,364	\$2,018	\$ 2.20	83415			1	5,334	0.000	0.000
NE	602	INL-1 Water	Potable	Million Gallons	2012	4	18,845		\$50,271	\$ 2.67	83415			NA	0.000	0.000	0.000

Utility/Fuel Consumption and Cost													Notes			Estimated GHG Emissions		
PSO	Site #	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU's 10 ⁶	Cost (1,000 \$)	\$/Unit	Main Site Zip Code	Additional Information	SFO Notes	Scope	Anthropogenic MtCO ₂ e	Biogenic MtCO ₂ e	Scope 3 - T&D Loss, MtCO ₂ e	
NE	604	MFC	Buildings	Fuel Oil	2005	3	127.437	17,586,306	\$231.739	\$ 1.82	83415			1	1,312.343	0.000	0.000	
NE	604	MFC	Vehicles and Equipment	Diesel	2005	3	0.650	89,700	\$1,182	\$ 1.82	83415			1	6.694	0.000	0.000	
NE	604	MFC	Vehicles and Equipment	Gasoline	2005	3	0.206	25,750	\$0.442	\$ 2.15	83415			1	1.825	0.000	0.000	
NE	604	MFC	Buildings	Electricity	2005	4	5,305,400	17,760,825	\$294.324	\$ 0.06	83415			2	2,142.161	0.000	141.106	
NE	604	MFC	Buildings	Fuel Oil	2005	4	45,130	6,227,940	\$103.437	\$ 2.29	83415			1	464.748	0.000	0.000	
NE	604	MFC	Buildings	Square Feet	2005	4	570,357			\$ -	83415			NA	0.000	0.000	0.000	
NE	604	MFC	Vehicles and Equipment	Diesel	2005	4	0.680	93,840	\$1,459	\$ 2.29	83415			1	7.003	0.000	0.000	
NE	604	MFC	Vehicles and Equipment	Gasoline	2005	4	0.246	30,750	\$0.588	\$ 2.39	83415			1	2.180	0.000	0.000	

Facilities Utility/Fuel Consumption and Cost

Background: NCCDA, EPC&T 2005, EBA, 2007, DOE O 456-1, E.O. 13134
Instructions: Provide FY 2012 quarterly consumption and associated cost information for facilities, on-dieet vehicles and equipment, and fully serviced leases (new, voluntary in FY 2012) by utility/fuel type and address SPO request. On-site non-renewable energy should gge be reported in this tab. To receive appropriate credit for reducing on-site generated nonrenewable energy complete the "dal % of utility/Metered" column in tab 2.1. On-site generated and purchased renewable energy should be reported in tabs 2.2a and 3.2b, respectively. FY 2012 square footage should be estimated based on FIMS reports 005, 047, and 063. The SFO will update estimated square footages. If needed, based on the FIMS snapshot in mid-November. If historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column.
Source: SiteLab All data reviewed, updated, and is correct for FY 2013 CDDR Report - Ernest Fessum 11/14/12

Utility/Fuel Consumption and Cost										Notes					Estimated GHG Emissions			
FPO	Site #	Site	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU x 10 ⁶	Cost (1,000 \$)	\$/Unit	Main Site Zip Code	Additional Information	SFO Notes	Scope	Anthropogenic MtCO ₂ e	Biogenic MtCO ₂ e	Scope 3 - L&D MtCO ₂ e
NE	603	INT-S Buildings	Electricity	Megawatt Hour	2003	1		39,856,456	135,090,228	\$1,693,459	\$ 0.04	83415			2	16,401,992	0.000	1,080,416
NE	603	INT-S Buildings	Rail Oil	1,000 Gallons	2003	1		975,228	134,581,664	\$897,941	\$ 0.91	83415			1	10,042,973	0.000	0.000
NE	603	INT-S Buildings	LPG	Billion BTUs	2003	1		1,015	1,015,000	\$7,441	\$ 7.33	83415			1	53,938	0.000	0.000
NE	603	INT-S Buildings	LPG	1,000 Gallons	2003	1		70,472	65,001,824	\$64,376	\$ 0.91	83415			1	413,796	0.000	0.000
NE	603	INT-S Excluded	Electricity	Megawatt Hour	2003	1		5,932,000	33,475,544	\$385,512	\$ 0.04	83415			2	4,037,899	0.000	266,960
NE	603	INT-S Vehicles and Equipment	Diesel	1,000 Gallons	2003	1		9,977	1,252,626	\$8,264	\$ 0.91	83415			1	93,475	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Gasoline	402,875	2003	1		3,223	\$4,350	\$ 1.36	83415				1	28,557	0.000	0.000
NE	603	INT-S Vehicles and Equipment	LPG	1,000 Gallons	2003	1		0,224	20,608	\$0,193	\$ 0.86	83415			1	1,312	0.000	0.000
NE	603	INT-S Buildings	Electricity	Megawatt Hour	2003	2		41,913,725	149,009,630	\$1,738,468	\$ 0.04	83415			2	17,248,413	0.000	1,136,183
NE	603	INT-S Buildings	Rail Oil	1,000 Gallons	2003	2		1,030,626	146,226,888	\$1,081,873	\$ 1.05	83415			1	10,613,360	0.000	0.000
NE	603	INT-S Buildings	LPG	Billion BTUs	2003	2		1,573	1,573,000	\$11,658	\$ 7.41	83415			1	83,591	0.000	0.000
NE	603	INT-S Excluded	LPG	1,000 Gallons	2003	2		68,121	62,671,132	\$73,325	\$ 1.08	83415			1	398,859	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Electricity	Megawatt Hour	2003	2		8,650,700	29,516,188	\$384,013	\$ 0.05	83415			2	3,559,893	0.000	234,500
NE	603	INT-S Vehicles and Equipment	Diesel	1,000 Gallons	2003	2		6,057	835,866	\$6,258	\$ 1.05	83415			1	62,375	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Gasoline	1,000 Gallons	2003	2		4,145	518,125	\$6,254	\$ 1.51	83415			1	36,726	0.000	0.000
NE	603	INT-S Buildings	LPG	1,000 Gallons	2003	2		0,391	35,052	\$0,433	\$ 1.14	83415			1	2,231	0.000	0.000
NE	603	INT-S Buildings	Electricity	Megawatt Hour	2003	3		34,095,499	116,933,843	\$1,221,720	\$ 0.04	83415			2	14,031,025	0.000	928,250
NE	603	INT-S Buildings	Rail Oil	1,000 Gallons	2003	3		357,321	74,177,898	\$495,317	\$ 0.92	83415			1	5,553,377	0.000	0.000
NE	603	INT-S Buildings	LPG	Billion BTUs	2003	3		0,000	0,000	\$0,000	NA	83415			1	0.000	0.000	0.000
NE	603	INT-S Buildings	LPG	1,000 Gallons	2003	3		20,537	1,889,494	\$18,850	\$ 0.92	83415			1	120,247	0.000	0.000
NE	603	INT-S Excluded	Electricity	Megawatt Hour	2003	3		8,888,200	30,360,638	\$319,155	\$ 0.04	83415			2	3,661,846	0.000	241,209
NE	603	INT-S Vehicles and Equipment	Diesel	1,000 Gallons	2003	3		8,351	1,152,438	\$7,711	\$ 0.92	83415			1	85,598	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Gasoline	410,625	2003	3		3,285	\$4,675	\$ 1.42	83415				1	29,106	0.000	0.000
NE	603	INT-S Buildings	LPG	1,000 Gallons	2003	4		0,201	18,492	\$0,207	\$ 1.03	83415			1	1,177	0.000	0.000
NE	603	INT-S Buildings	Electricity	Megawatt Hour	2003	4		32,770,462	111,812,919	\$958,420	\$ 0.03	83415			2	13,485,929	0.000	888,332
NE	603	INT-S Buildings	Rail Oil	1,000 Gallons	2003	4		270,153	38,385,114	\$270,485	\$ 0.97	83415			1	2,864,412	0.000	0.000
NE	603	INT-S Buildings	LPG	Billion BTUs	2003	4		0,481	481,000	\$3,200	\$ 7.28	83415			1	25,561	0.000	0.000
NE	603	INT-S Buildings	LPG	1,000 Gallons	2003	4		20,516	1,887,472	\$19,810	\$ 0.97	83415			1	120,124	0.000	0.000
NE	603	INT-S Buildings	Square Feet	1,000 Square Feet	2003	4		4,464,917		\$ -	-	83415			NA	0.000	0.000	0.000
NE	603	INT-S Excluded	Electricity	Megawatt Hour	2003	4		71,899,600	24,565,035	\$272,687	\$ 0.03	83415			2	3,963,827	0.000	195,164
NE	603	INT-S Excluded	Square Feet	1,000 Square Feet	2003	4		147,325		\$ -	-	83415			NA	0.000	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Diesel	1,000 Gallons	2003	4		12,411	1,712,718	\$17,068	\$ 0.97	83415			1	127,869	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Gasoline	1,000 Gallons	2003	4		4,115	514,375	\$6,439	\$ 1.56	83415			1	36,460	0.000	0.000
NE	603	INT-S Vehicles and Equipment	LPG	1,000 Gallons	2003	4		0,406	37,352	\$0,373	\$ 0.92	83415			1	2,377	0.000	0.000
NE	603	INT-S Buildings	Other	Billion BTUs	2003	4		0,000	\$0,000	\$0,000	NA	83415			1	0.000	0.000	0.000
NE	603	INT-S Buildings	Electricity	Megawatt Hour	2004	1		42,720,480	145,762,278	\$1,722,012	\$ 0.04	83415			2	17,280,614	0.000	1,128,053
NE	603	INT-S Buildings	Rail Oil	1,000 Gallons	2004	1		652,342	90,023,196	\$647,671	\$ 0.99	83415			1	6,777,801	0.000	0.000
NE	603	INT-S Buildings	LPG	Billion BTUs	2004	1		1,052	1,052,000	\$8,096	\$ 7.70	83415			1	55,504	0.000	0.000
NE	603	INT-S Buildings	LPG	1,000 Gallons	2004	1		39,016	3,489,472	\$40,019	\$ 1.03	83415			1	228,445	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Diesel	1,000 Gallons	2004	1		4,921	679,098	\$7,259	\$ 1.53	83415			1	50,676	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Gasoline	1,000 Gallons	2004	1		9,865	108,125	\$4,921	\$ 5.69	83415			1	7,664	0.000	0.000
NE	603	INT-S Vehicles and Equipment	LPG	1,000 Gallons	2004	1		0,568	52,256	\$0,565	\$ 0.96	83415			1	3,356	0.000	0.000
NE	603	INT-S Buildings	Electricity	Megawatt Hour	2004	2		49,444,840	169,395,018	\$2,022,423	\$ 0.04	83415			2	20,430,996	0.000	1,345,810

Utility/Fuel Consumption and Cost										Notes				Estimated GHG Emissions			
PSO	Site #	Category	Sub-category	Usage Unit	FY	QTR	Usage Amount	BTU x 10 ⁶	Cost (1,000 \$)	\$/Unit	Main Site Zip Code	Additional Information	SFO Notes	Scope	Autanthropic MTCO ₂ e	Biogenic MTCO ₂ e	Scope 3 - T&D Loss MTCO ₂ e
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2004	2	1,011.117	139,534.146	\$1,051.909	\$ 1.04	83415			1	10,412.457	0.000	0.000
NE	603	INL-S Buildings	LPG	Billion BTUs	2004	2	1.431		\$ 7.95	83415				1	76.045	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2004	2	60.784	5,592.128	\$64.661	\$ 1.06	83415			1	355.900	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2004	2	10.617	1,465.146	\$17.008	\$ 1.60	83415			1	109.334	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2004	2	1.174	146.750	\$1.890	\$ 1.61	83415			1	10.402	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2004	2	0.455	41.676	\$1.690	\$ 4.17	83415			1	2.652	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2004	3	39,330.580	134,159.959	\$1,716.527	\$ 0.04	83415			2	16,182.580	0.000	1,066.160
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2004	3	324.853	44,822.714	\$476.340	\$ 1.47	83415			1	3,345.328	0.000	0.000
NE	603	INL-S Buildings	LNG	1,000 Gallons	2004	3	0.000		\$0.000	NA	83415			1	0.000	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2004	3	7.236	665.712	\$6.912	\$ 0.96	83415			1	42.368	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2004	3	18.662	2,575.556	\$34.331	\$ 1.84	83415			1	192.181	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2004	3	1.119	139.875	\$2.073	\$ 1.85	83415			1	9.915	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2004	3	0.220	20.240	\$0.000	\$ -	83415			1	2.288	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2004	4	34,453.850	117,556.536	\$1,725.620	\$ 0.05	83415			2	14,178.676	0.000	933.964
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2004	4	341.977	47,192.826	\$470.733	\$ 1.38	83415			1	3,521.670	0.000	0.000
NE	603	INL-S Buildings	LPG	Billion BTUs	2004	4	0.770	770.000	\$6.149	\$ 7.99	83415			1	40.919	0.000	0.000
NE	603	INL-S Buildings	LNG	1,000 Gallons	2004	4	11.109	1,022.028	\$11.859	\$ 1.07	83415			1	65.045	0.000	0.000
NE	603	INL-S Buildings	Square Feet	1,000 Square Feet	2004	4	3,999.966		\$11.859	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2004	4	14.689	2,027.082	\$20.219	\$ 1.38	83415			1	151.267	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2004	4	1.587	198.375	\$2.945	\$ 1.79	83415			1	14.061	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2004	4	0.403	37.076	\$0.387	\$ 0.96	83415			1	2.360	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Other	Billion BTUs	2004	4	0.000		\$0.000	NA	83415			1	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2005	1	38,566.250	131,588.045	\$1,696.964	\$ 0.04	83415			2	15,871.038	0.000	1,045.441
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2005	1	545.020	75,212.760	\$773.394	\$ 1.42	83415			1	5,612.602	0.000	0.000
NE	603	INL-S Buildings	LPG	Billion BTUs	2005	1	0.783	783.000	\$7.019	\$ 8.96	83415			1	41.669	0.000	0.000
NE	603	INL-S Buildings	LNG	1,000 Gallons	2005	1	61.696	5,675.112	\$77.500	\$ 1.26	83415			1	363.181	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2005	1	18.820	2,597.160	\$26.707	\$ 1.42	83415			1	193.868	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2005	1	1.041	130.125	\$1.507	\$ 1.83	83415			1	9.224	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2005	1	0.216	19.872	\$0.254	\$ 1.18	83415			1	1.265	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2005	2	45,672.200	155,833.546	\$2,011.355	\$ 0.04	83415			2	18,795.325	0.000	1,238.067
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2005	2	882.028	121,719.864	\$1,223.776	\$ 1.39	83415			1	9,083.101	0.000	0.000
NE	603	INL-S Buildings	LPG	Billion BTUs	2005	2	1.500	1,500.000	\$15.339	\$ 10.23	83415			1	79.712	0.000	0.000
NE	603	INL-S Buildings	LNG	1,000 Gallons	2005	2	71.220	6,593.160	\$85.898	\$ 1.21	83415			1	417.063	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2005	2	18.927	2,529.126	\$25.427	\$ 1.39	83415			1	188.731	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2005	2	4.256	532.000	\$7.545	\$ 1.77	83415			1	37.710	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2005	2	0.254	23.368	\$0.037	\$ 0.15	83415			1	1.487	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2005	3	39,641.630	135,257.242	\$1,867.073	\$ 0.05	83415			2	16,313.585	0.000	1,074.592
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2005	3	335.490	46,297.620	\$610.073	\$ 1.82	83415			1	3,454.867	0.000	0.000
NE	603	INL-S Buildings	LPG	Billion BTUs	2005	3	0.381	381.000	\$4.118	\$ 10.81	83415			1	20.247	0.000	0.000
NE	603	INL-S Buildings	LNG	1,000 Gallons	2005	3	32.222	2,964.034	\$39.170	\$ 1.22	83415			1	188.665	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2005	3	37.050	5,112.900	\$67.373	\$ 1.82	83415			1	381.540	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2005	3	4.713	589.125	\$10.108	\$ 2.14	83415			1	41.759	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2005	3	0.339	31.188	\$0.305	\$ 1.14	83415			1	1.985	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2005	4	38,446.010	131,177.786	\$2,015.358	\$ 0.05	83415			2	15,821.556	0.000	1,042.182
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2005	4	243.432	33,593.616	\$557.939	\$ 2.29	83415			1	2,506.856	0.000	0.000
NE	603	INL-S Buildings	LPG	Billion BTUs	2005	4	1.945	1,245.000	\$17.929	\$ 14.40	83415			1	66.161	0.000	0.000
NE	603	INL-S Buildings	LNG	1,000 Gallons	2005	4	6.627	609.684	\$8.946	\$ 1.34	83415			1	38.802	0.000	0.000
NE	603	INL-S Buildings	Square Feet	1,000 Square Feet	2005	4	3,628.074		\$42.066	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2005	4	21.408	2,954.504	\$49.432	\$ 2.39	83415			1	220.459	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2005	4	3.948	493.500	\$9.432	\$ 2.39	83415			1	34.981	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2005	4	0.191	17.872	\$0.220	\$ 1.15	83415			1	1.118	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2006	1	54,259.080	185,268.461	\$2,483.429	\$ 0.05	83415			2	22,345.516	0.000	1,471.921

Utility/Fuel Consumption and Cost										Notes				Estimated GHG Emissions			
PSO	Site #	Category	Sub-category	Usage Unit	FY	QTR	Usage Amount	BTU x 10 ⁶	Cost (1,000 \$)	\$/Unit	Main Site Zip Code	Additional Information	SFO Notes	Scope	Anthropogenic MTCO ₂ e	Biogenic MTCO ₂ e	Scope 3 - T&D Loss, MTCO ₂ e
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2006	1	849,620	117,247,560	\$1,751,031	\$ 2.06	83415			1	8,749,365	0.000	0.000
NE	603	INL-S Buildings	LNG	Billion BTUs	2006	1	1,090		\$12,191	\$ 11.18	83415			1	57,924	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2006	1	36,576	3,644,992	\$54,332	\$ 1.49	83415			1	214,158	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2006	1	21,693	2,993,634	\$44,716	\$ 2.06	83415			1	223,394	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2006	1	5,520	690,000	\$11,692	\$ 2.12	83415			1	48,899	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2006	1	0,309	28,428	\$0,449	\$ 1.45	83415			1	1,809	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2006	2	56,273.160	192,004,022	\$2,630,092	\$ 0.05	83415			2	23,157,502	0.000	1,525,454
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2006	2	1,077,369	148,676,922	\$2,067,576	\$ 1.92	83415			1	11,094,718	0.000	0.000
NE	603	INL-S Buildings	LNG	Billion BTUs	2006	2	1,180	1,180,000	\$13,555	\$ 11.49	83415			1	62,706	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2006	2	64,852	5,966,384	\$94,476	\$ 1.46	83415			1	379,719	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2006	2	41,377	5,710,026	\$79,407	\$ 1.92	83415			1	426,099	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2006	2	3,318	414,750	\$7,135	\$ 2.15	83415			1	29,399	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2006	2	0,130	11,960	\$0,200	\$ 1.54	83415			1	0,761	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2006	3	44,109,340	150,501,068	\$2,144,169	\$ 0.05	83415			2	18,152,167	0.000	1,195,701
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2006	3	401,682	55,432,116	\$892,512	\$ 2.22	83415			1	4,136,511	0.000	0.000
NE	603	INL-S Buildings	LNG	Billion BTUs	2006	3	0,410	410,000	\$4,188	\$ 10.21	83415			1	21,788	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2006	3	26,963	2,480,596	\$39,346	\$ 1.46	83415			1	157,873	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2006	3	36,384	5,030,992	\$80,842	\$ 2.22	83415			1	374,681	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2006	3	5,488	686,000	\$14,307	\$ 2.61	83415			1	48,626	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2006	3	0,250	23,000	\$0,382	\$ 1.53	83415			1	1,464	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Other	Billion BTUs	2006	3	36,384	36,384,000	\$80,842	\$ 2.22	83415			1	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2006	4	36,878.150	125,828,248	\$845,342	\$ 0.02	83415			2	15,176,340	0.000	999,681
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2006	4	130,240	17,975,880	\$285,270	\$ 2.19	83415			1	1,341,414	0.000	0.000
NE	603	INL-S Buildings	LNG	Billion BTUs	2006	4	0,000	0,000	\$0,000	NA	83415			1	0.000	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2006	4	1,777	163,484	\$3,018	\$ 1.70	83415			1	10,405	0.000	0.000
NE	603	INL-S Buildings	Square Feet	1,000 Square Feet	2006	4	4,193,801			\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Excluded	Square Feet	1,000 Square Feet	2006	4	147,325			\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2006	4	33,283	4,593,054	\$72,890	\$ 2.19	83415			1	342,747	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2006	4	5,494	686,750	\$14,760	\$ 2.69	83415			1	48,679	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2006	4	0,238	20,976	\$0,335	\$ 1.47	83415			1	1,335	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2007	1	43,203,290	147,409,625	\$961,022	\$ 0.02	83415			2	17,779,303	0.000	1,171,140
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2007	1	775,181	106,974,978	\$1,634,985	\$ 2.11	83415			1	7,982,794	0.000	0.000
NE	603	INL-S Buildings	LNG	Billion BTUs	2007	1	1,326	1,326,000	\$12,530	\$ 9.45	83415			1	70,465	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2007	1	62,752	5,773,184	\$85,918	\$ 1.37	83415			1	367,423	0.000	0.000
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2007	1	9,293,400	31,709,081	\$206,783	\$ 0.02	83415			2	3,824,481	0.000	251,922
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2007	1	37,434	5,165,892	\$101,346	\$ 2.71	83415			1	385,494	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2007	1	5,289	661,125	\$11,805	\$ 2.23	83415			1	46,863	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2007	1	0,000	0,000	\$0,000	NA	83415			1	0.000	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish		2007	1	0,000	#N/A	\$0,000	NA	83415			NA	0.000	0.000	0.000
NE	603	INL-S Water	Potable		2007	1	246,441		\$0,000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2007	2	46,818,570	159,744,961	\$1,044,709	\$ 0.02	83415			2	19,267,087	0.000	1,269,142
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2007	2	825,208	113,878,704	\$1,640,156	\$ 1.99	83415			1	8,497,971	0.000	0.000
NE	603	INL-S Buildings	LNG	Billion BTUs	2007	2	1,791	1,791,000	\$19,746	\$ 10.47	83415			1	95,176	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2007	2	87,723	8,070,516	\$132,517	\$ 1.51	83415			1	513,632	0.000	0.000
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2007	2	9,798,200	33,431,458	\$212,142	\$ 0.02	83415			2	4,032,220	0.000	265,606
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2007	2	41,175	5,682,150	\$81,837	\$ 1.99	83415			1	424,019	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2007	2	4,161	520,125	\$8,942	\$ 2.15	83415			1	36,868	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2007	2	1,574	144,808	\$3,563	\$ 2.26	83415			1	9,216	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish		2007	2	0,000	#N/A	\$0,000	NA	83415			NA	0.000	0.000	0.000
NE	603	INL-S Water	Potable		2007	2	230,427		\$0,000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2007	3	34,800,950	118,740,841	\$855,574	\$ 0.02	83415			2	14,321,517	0.000	943,373
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2007	3	384,221	53,022,498	\$867,263	\$ 2.26	83415			1	3,956,698	0.000	0.000

Utility Fuel Consumption and Cost										Notes				Estimated GHG Emissions			
PSO	Site #	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	RTU x 10 ⁻⁶	Cost (1,000 \$)	\$/Trib	Main Site Zip Code	Additional Information	SFO Rates	Scope	Autopropagemic MTCO ₂ e	Biogenic MTCO ₂ e	Scope 3 - T&D Loss MTCO ₂ e
NE	603	INTL-S Buildings	LNG	Billion BTUs	2007	3	0.431	431.000	\$3.697	\$ 8.58	83415			1	22.904	0.000	0.000
NE	603	INTL-S Buildings	LPG	1,000 Gallons	2007	3	21.783	2,004.036	\$33.997	\$ 1.56	83415			1	127.543	0.000	0.000
NE	603	INTL-S Excluded	Electricity	Megawatt Hour	2007	3	4,980.100	16,992.101	\$138.924	\$ 0.03	83415			2	2,649.444	0.000	134.999
NE	603	INTL-S Vehicles and Equipment	Diesel	1,000 Gallons	2007	3	40.381	5,572.778	\$112.743	\$ 2.79	83415			1	411.842	0.000	0.000
NE	603	INTL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2007	3	5.559	694.875	\$16.342	\$ 2.94	83415			1	49.235	0.000	0.000
NE	603	INTL-S Vehicles and Equipment	LPG	1,000 Gallons	2007	3	0.577	53.084	\$1.137	\$ 1.97	83415			1	3.318	0.000	0.000
NE	603	INTL-S Water	Aquifer Replenish	Potable	2007	3	0.000	NA	\$0.000	NA	83415			NA	0.000	0.000	0.000
NE	603	INTL-S Water	Potable	Million Gallons	2007	3	247.955	NA	\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INTL-S Buildings	Electricity	Megawatt Hour	2007	4	32,707.340	111,597.478	\$945.518	\$ 0.03	83415			2	13,459.945	0.000	886.620
NE	603	INTL-S Buildings	Fuel Oil	1,000 Gallons	2007	4	163.382	22,546.716	\$399.696	\$ 2.39	83415			1	1,682.504	0.000	0.000
NE	603	INTL-S Buildings	LPG	Billion BTUs	2007	4	0.373	373.000	\$3.124	\$ 8.38	83415			1	19.822	0.000	0.000
NE	603	INTL-S Buildings	LPG	1,000 Gallons	2007	4	6.706	616.952	\$10.605	\$ 1.58	83415			1	39.265	0.000	0.000
NE	603	INTL-S Buildings	Square Feet	1,000 Square Feet	2007	4	4,691.853	NA	\$ -	-	83415			NA	0.000	0.000	0.000
NE	603	INTL-S Excluded	Electricity	Megawatt Hour	2007	4	7,699.400	25,387.953	\$221.906	\$ 0.03	83415			2	3,086.203	0.000	203.291
NE	603	INTL-S Excluded	Square Feet	1,000 Square Feet	2007	4	147.517	NA	\$ -	-	83415			NA	0.000	0.000	0.000
NE	603	INTL-S Vehicles and Equipment	Diesel	1,000 Gallons	2007	4	51.586	7,118.868	\$149.315	\$ 2.89	83415			1	53.231	0.000	0.000
NE	603	INTL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2007	4	7.106	885.250	\$19.731	\$ 2.78	83415			1	62.962	0.000	0.000
NE	603	INTL-S Vehicles and Equipment	LPG	1,000 Gallons	2007	4	0.031	2.852	\$0.669	\$ 2.23	83415			1	0.182	0.000	0.000
NE	603	INTL-S Water	Aquifer Replenish	Potable	2007	4	0.000	NA	\$0.000	NA	83415			NA	0.000	0.000	0.000
NE	603	INTL-S Water	Potable	Million Gallons	2007	4	280.096	NA	\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INTL-S Buildings	Electricity	Megawatt Hour	2008	1	43,651.392	148,938.550	\$1,215.281	\$ 0.03	83415			2	17,963.709	0.000	1,183.287
NE	603	INTL-S Buildings	Fuel Oil	1,000 Gallons	2008	1	701.708	96,835.704	\$1,596.088	\$ 2.79	83415			1	7,226.171	0.000	0.000
NE	603	INTL-S Buildings	LNG	Billion BTUs	2008	1	1.065	1,065.000	\$8.893	\$ 8.27	83415			1	56.595	0.000	0.000
NE	603	INTL-S Buildings	LPG	1,000 Gallons	2008	1	87.958	8,092.136	\$177.404	\$ 2.02	83415			1	511.008	0.000	0.000
NE	603	INTL-S Excluded	Electricity	Megawatt Hour	2008	1	8,683.100	29,632.737	\$248.467	\$ 0.03	83415			2	3,373.327	0.000	235.379
NE	603	INTL-S Vehicles and Equipment	Diesel	1,000 Gallons	2008	1	65.602	9,033.076	\$223.866	\$ 3.44	83415			1	673.568	0.000	0.000
NE	603	INTL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2008	1	7.690	961.250	\$21.576	\$ 2.81	83415			1	68.136	0.000	0.000
NE	603	INTL-S Vehicles and Equipment	LPG	1,000 Gallons	2008	1	0.184	16.928	\$0.453	\$ 2.46	83415			1	1.077	0.000	0.000
NE	603	INTL-S Water	Aquifer Replenish	Potable	2008	1	0.000	NA	\$0.000	NA	83415			NA	0.000	0.000	0.000
NE	603	INTL-S Water	Potable	Million Gallons	2008	1	51,023.135	174,097.525	\$1,460.263	\$ 0.03	83415			2	20,996.966	0.000	1,383.091
NE	603	INTL-S Buildings	Electricity	Megawatt Hour	2008	2	908.745	125,406.810	\$2,570.792	\$ 2.83	83415			1	9,538.232	0.000	0.000
NE	603	INTL-S Buildings	Fuel Oil	Billion BTUs	2008	2	1.847	1,847.000	\$27.417	\$ 14.84	83415			1	98.151	0.000	0.000
NE	603	INTL-S Buildings	LPG	1,000 Gallons	2008	2	133.286	12,862.312	\$297.869	\$ 2.23	83415			1	788.410	0.000	0.000
NE	603	INTL-S Excluded	Electricity	Megawatt Hour	2008	2	8,076.200	27,555.594	\$245.470	\$ 0.03	83415			2	3,323.571	0.000	218.927
NE	603	INTL-S Vehicles and Equipment	Diesel	1,000 Gallons	2008	2	69.785	9,630.330	\$240.116	\$ 3.44	83415			1	718.644	0.000	0.000
NE	603	INTL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2008	2	9.915	1,164.375	\$27.015	\$ 2.90	83415			1	82.534	0.000	0.000
NE	603	INTL-S Vehicles and Equipment	LPG	1,000 Gallons	2008	2	0.320	47.840	\$1.216	\$ 2.34	83415			1	3.045	0.000	0.000
NE	603	INTL-S Water	Aquifer Replenish	Potable	2008	2	0.000	NA	\$0.000	NA	83415			NA	0.000	0.000	0.000
NE	603	INTL-S Water	Potable	Million Gallons	2008	2	36,772.060	125,466.269	\$1,138.853	\$ 0.03	83415			2	15,132.681	0.000	996.805
NE	603	INTL-S Buildings	Electricity	Megawatt Hour	2008	3	464.348	64,080.024	\$1,691.654	\$ 3.64	83415			1	4,781.844	0.000	0.000
NE	603	INTL-S Buildings	Fuel Oil	Billion BTUs	2008	3	0.801	801.000	\$13.212	\$ 16.49	83415			1	42.566	0.000	0.000
NE	603	INTL-S Buildings	LNG	1,000 Gallons	2008	3	52.838	4,861.096	\$110.944	\$ 2.10	83415			1	309.375	0.000	0.000
NE	603	INTL-S Buildings	LPG	1,000 Gallons	2008	3	7,349.900	25,077.859	\$258.601	\$ 0.04	83415			2	3,034.679	0.000	189.239
NE	603	INTL-S Excluded	Electricity	Megawatt Hour	2008	3	47.580	6,566.040	\$200.026	\$ 4.20	83415			1	489.978	0.000	0.000
NE	603	INTL-S Vehicles and Equipment	Diesel	1,000 Gallons	2008	3	5.549	693.625	\$19.953	\$ 3.60	83415			1	49.166	0.000	0.000
NE	603	INTL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2008	3	1.911	175.812	\$4.416	\$ 2.31	83415			1	11.189	0.000	0.000
NE	603	INTL-S Vehicles and Equipment	LPG	1,000 Gallons	2008	3	0.000	NA	\$0.000	NA	83415			NA	0.000	0.000	0.000
NE	603	INTL-S Water	Aquifer Replenish	Potable	2008	4	32,347.107	110,368.329	\$1,158.826	\$ 0.04	83415			2	13,311.695	0.000	876.835
NE	603	INTL-S Buildings	Electricity	Megawatt Hour	2008	4	145.372	20,061.336	\$253.818	\$ 3.60	83415			1	1,497.037	0.000	0.000
NE	603	INTL-S Buildings	Fuel Oil	1,000 Gallons	2008	4	0.000	0.000	\$0.000	NA	83415			NA	0.000	0.000	0.000
NE	603	INTL-S Buildings	LNG	Billion BTUs	2008	4	10.047	924.324	\$20.805	\$ 2.07	83415			1	58.827	0.000	0.000
NE	603	INTL-S Buildings	LPG	1,000 Gallons	2008	4	4,378.910	NA	\$ -	-	83415			NA	0.000	0.000	0.000

Utility/Fuel Consumption and Cost										Notes			Estimated GHG Emissions				
FSO	Site #	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU x 10 ⁶	Cost (1,000 \$)	\$/Unit	Main Site Zip Code	Additional Information	SFO Notes	Scope	Anthropogenic MtCO ₂ e	Biogenic MtCO ₂ e	Scope 3 - T&D Loss, MtCO ₂ e
NE	603	INT-S Excluded	Electricity	Megawatt Hour	2008	4	9,090,500	31,016,786	\$333.485	\$	0.04	83415		2	3,740,983	0.000	246.422
NE	603	INT-S Excluded	Square Feet	1,000 Square Feet	2008	4	147,325			\$	-	83415		NA	0.000	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Gasoline	1,000 Gallons	2008	4	49,272	6,799,536	\$207.628	\$	4.21	83415		1	507,402	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Gasoline	1,000 Gallons	2008	4	7,743	\$29,306	\$	3.78	83415		1	68,606	0.000	0.000	0.000
NE	603	INT-S Vehicles and Equipment	LPG	1,000 Gallons	2008	4	0.489	44,988	\$1,261	\$	2.58	83415		1	2,863	0.000	0.000
NE	603	INT-S Water	Aquifer Replenish		2008	4	0.000	#N/A	\$0.000		NA	83415			0.000	0.000	0.000
NE	603	INT-S Buildings	Electricity	Megawatt Hour	2009	1	41,389,002	141,219,275	\$1,455,289	\$	0.04	83415		2	17,032,675	0.000	1,121,959
NE	603	INT-S Buildings	Fuel Oil	1,000 Gallons	2009	1	599,207	82,690,566	\$1,211,714	\$	2.02	83415		1	6,170,618	0.000	0.000
NE	603	INT-S Buildings	LNG	Billion BTUs	2009	1	1,642	1,642,000	\$19,403	\$	11.62	83415		1	87,258	0.000	0.000
NE	603	INT-S Buildings	LPG	1,000 Gallons	2009	1	72,240	6,646,080	\$134,769	\$	1.87	83415		1	422,976	0.000	0.000
NE	603	INT-S Excluded	Electricity	Megawatt Hour	2009	1	7,924,200	27,037,370	\$300,159	\$	0.04	83415		2	3,261,019	0.000	214,807
NE	603	INT-S Vehicles and Equipment	Diesel	1,000 Gallons	2009	1	53,973	7,448,274	\$118,650	\$	2.94	83415		1	555,813	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Gasoline	1,000 Gallons	2009	1	6,893	861,625	\$14,349	\$	2.08	83415		1	61,075	0.000	0.000
NE	603	INT-S Vehicles and Equipment	LPG	1,000 Gallons	2009	1	0.389	26,588	\$0,658	\$	2.28	83415		1	1,692	0.000	0.000
NE	603	INT-S Water	Aquifer Replenish		2009	1	0.000	#N/A	\$0.000		NA	83415			0.000	0.000	0.000
NE	603	INT-S Water	Potable	Million Gallons	2009	1	208,833	\$0.000	\$	-	83415		SFO Request: Please provide FY 200 NA	NA	0.000	0.000	0.000
NE	603	INT-S Buildings	Electricity	Megawatt Hour	2009	2	46,186,239	157,597,516	\$1,703,693	\$	0.04	83415		2	19,006,974	0.000	1,252,002
NE	603	INT-S Buildings	Fuel Oil	1,000 Gallons	2009	2	796,994	109,985,172	\$1,239,650	\$	1.56	83415		1	8,207,423	0.000	0.000
NE	603	INT-S Buildings	LNG	Billion BTUs	2009	2	1,310	1,310,000	\$15,107	\$	11.53	83415		1	69,615	0.000	0.000
NE	603	INT-S Buildings	LPG	1,000 Gallons	2009	2	114,980	10,578,160	\$220,425	\$	1.92	83415		1	673,226	0.000	0.000
NE	603	INT-S Excluded	Electricity	Megawatt Hour	2009	2	9,344,100	31,882,069	\$342,244	\$	0.04	83415		2	3,845,346	0.000	253,297
NE	603	INT-S Vehicles and Equipment	Diesel	1,000 Gallons	2009	2	60,901	8,404,338	\$133,332	\$	2.19	83415		1	627,157	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Gasoline	1,000 Gallons	2009	2	7,081	885,125	\$11,111	\$	1.57	83415		1	62,740	0.000	0.000
NE	603	INT-S Vehicles and Equipment	LPG	1,000 Gallons	2009	2	0.188	17,296	\$0,399	\$	2.12	83415		1	1,101	0.000	0.000
NE	603	INT-S Water	Aquifer Replenish		2009	2	0.000	#N/A	\$0.000		NA	83415			0.000	0.000	0.000
NE	603	INT-S Water	Potable	Million Gallons	2009	2	197,093	\$0.000	\$	-	83415			NA	0.000	0.000	0.000
NE	603	INT-S Buildings	Electricity	Megawatt Hour	2009	3	33,916,045	115,721,546	\$1,326,628	\$	0.04	83415		2	13,957,355	0.000	919,385
NE	603	INT-S Buildings	Fuel Oil	1,000 Gallons	2009	3	373,440	51,534,720	\$619,080	\$	1.66	83415		1	3,845,675	0.000	0.000
NE	603	INT-S Buildings	LNG	Billion BTUs	2009	3	0.562	562,000	\$6,020	\$	10.71	83415		1	29,865	0.000	0.000
NE	603	INT-S Buildings	LPG	1,000 Gallons	2009	3	30,665	2,821,180	\$51,387	\$	1.68	83415		1	179,548	0.000	0.000
NE	603	INT-S Excluded	Electricity	Megawatt Hour	2009	3	9,436,100	32,195,973	\$369,997	\$	0.04	83415		2	3,883,206	0.000	255,791
NE	603	INT-S Vehicles and Equipment	Diesel	1,000 Gallons	2009	3	55,260	7,625,880	\$120,476	\$	2.18	83415		1	569,666	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Gasoline	1,000 Gallons	2009	3	7,218	902,230	\$15,423	\$	2.14	83415		1	63,954	0.000	0.000
NE	603	INT-S Vehicles and Equipment	LPG	1,000 Gallons	2009	3	0.152	13,984	\$0,284	\$	1.87	83415		1	0,890	0.000	0.000
NE	603	INT-S Water	Aquifer Replenish		2009	3	0.000	#N/A	\$0.000		NA	83415			0.000	0.000	0.000
NE	603	INT-S Water	Potable	Million Gallons	2009	3	241,543	\$0.000	\$	-	83415			NA	0.000	0.000	0.000
NE	603	INT-S Buildings	Electricity	Megawatt Hour	2009	4	31,280,775	106,730,004	\$1,350,369	\$	0.04	83415		2	12,872,871	0.000	847,949
NE	603	INT-S Buildings	Fuel Oil	1,000 Gallons	2009	4	99,334	13,708,092	\$199,552	\$	2.01	83415		1	1,022,939	0.000	0.000
NE	603	INT-S Buildings	LNG	Billion BTUs	2009	4	0.000	0.000	\$0.000		NA	83415		1	0.000	0.000	0.000
NE	603	INT-S Buildings	LPG	1,000 Gallons	2009	4	5,483	513,636	\$8,271	\$	1.48	83415		1	32,689	0.000	0.000
NE	603	INT-S Buildings	Square Feet	1,000 Square Feet	2009	4	4,243,392			\$	-	83415		NA	0.000	0.000	0.000
NE	603	INT-S Excluded	Electricity	Megawatt Hour	2009	4	5,497,600	18,757,811	\$293,061	\$	0.05	83415		2	2,262,409	0.000	149,027
NE	603	INT-S Excluded	Square Feet	1,000 Square Feet	2009	4	147,325			\$	-	83415		NA	0.000	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Diesel	1,000 Gallons	2009	4	55,203	7,618,014	\$137,478	\$	2.49	83415		1	568,479	0.000	0.000
NE	603	INT-S Vehicles and Equipment	Gasoline	1,000 Gallons	2009	4	9,148	1,143,500	\$22,388	\$	2.45	83415		1	81,055	0.000	0.000
NE	603	INT-S Vehicles and Equipment	LPG	1,000 Gallons	2009	4	0.104	9,568	\$0,197	\$	1.89	83415		1	0,609	0.000	0.000
NE	603	INT-S Water	Aquifer Replenish		2009	4	0.000	#N/A	\$0.000		NA	83415			0.000	0.000	0.000
NE	603	INT-S Water	Potable	Million Gallons	2009	4	272,818	\$0.000	\$	-	83415			NA	0.000	0.000	0.000
NE	603	INT-S Buildings	Electricity	Megawatt Hour	2010	1	43,312,197	147,781,216	\$1,906,187	\$	0.04	83415		2	17,884,121	0.000	1,174,093
NE	603	INT-S Buildings	Fuel Oil	1,000 Gallons	2010	1	643,937	88,983,306	\$1,865,915	\$	2.13	83415		1	6,631,246	0.000	0.000
NE	603	INT-S Buildings	LNG	Billion BTUs	2010	1	1,597	1,597,000	\$22,166	\$	13.88	83415		1	84,866	0.000	0.000
NE	603	INT-S Buildings	LPG	1,000 Gallons	2010	1	86,099	7,921,108	\$146,432	\$	1.70	83415		1	504,123	0.000	0.000

Utility Fuel Consumption and Cost										Notes				Estimated GHG Emissions			
PSO	Site #	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU x 10 ⁶	Cost (1,000 \$)	\$/Unit	Main Site Zip Code	Additional Information	SFO Notes	Scope	Autopropagetic MtCO ₂ e	Biogenic MtCO ₂ e	Scope 3 - T &D Loss, MtCO ₂ e
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2010	1	10,151.500	34,636.918	\$446,246	\$ 0.04	83415			2	4,177.612	0.000	275.184
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2010	1	53.914	7,440.132	\$142.758	\$ 2.65	83415			1	555.205	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2010	1	5.542	692.750	\$13.507	\$ 2.44	83415			1	49.104	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2010	1	0.173	15.916	\$0.383	\$ 1.64	83415			1	1.013	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish	Million Gallons	2010	1	0.000	#N/A	\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2010	2	44,723.905	152,597.964	\$1,980.092	\$ 0.04	83415			2	18,405.077	0.000	1,212.361
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2010	2	734.080	101,303.040	\$1,635.682	\$ 2.23	83415			1	7,559.537	0.000	0.000
NE	603	INL-S Buildings	LPG	Billion BTUs	2010	2	1.163	1,163.000	\$16.966	\$ 14.59	83415			1	61.803	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2010	2	139.743	12,764.356	\$294.336	\$ 2.05	83415			1	812.362	0.000	0.000
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2010	2	9,728.600	33,193.983	\$422.460	\$ 0.04	83415			2	4,003.578	0.000	263.720
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2010	2	62.970	8,689.860	\$175.713	\$ 2.79	83415			1	648.463	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2010	2	7.699	962.375	\$20.211	\$ 2.63	83415			1	68.216	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2010	2	0.145	13.340	\$0.299	\$ 2.06	83415			1	0.849	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish	Million Gallons	2010	2	0.000	#N/A	\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Water	Potable	Million Gallons	2010	2	179.782	\$0.000	\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2010	3	34,370.462	117,273.016	\$1,626.247	\$ 0.04	83415			2	14,144.860	0.000	931.703
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2010	3	375.001	51,750.138	\$916.597	\$ 2.45	83415			1	3,861.751	0.000	0.000
NE	603	INL-S Buildings	LPG	Billion BTUs	2010	3	0.464	464.000	\$6.739	\$ 14.52	83415			1	24.657	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2010	3	42.963	3,932.596	\$84.906	\$ 1.98	83415			1	251.555	0.000	0.000
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2010	3	7,561.700	27,165.320	\$353.370	\$ 0.04	83415			2	3,276.451	0.000	215.823
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2010	3	33.385	4,607.130	\$88.470	\$ 2.65	83415			1	343.798	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2010	3	6.708	838.500	\$19.169	\$ 2.86	83415			1	59.435	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2010	3	0.130	11.860	\$0.258	\$ 1.98	83415			1	0.761	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish	Million Gallons	2010	3	0.000	#N/A	\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2010	4	30,173.256	102,597.973	\$1,092.744	\$ 0.04	83415			2	12,417.921	0.000	817.981
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2010	4	141.708	19,553.704	\$332.015	\$ 2.34	83415			1	1,459.305	0.000	0.000
NE	603	INL-S Buildings	LPG	Billion BTUs	2010	4	0.464	464.000	\$6.935	\$ 14.95	83415			1	24.657	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2010	4	19.803	1,821.876	\$39.662	\$ 1.95	83415			1	115.950	0.000	0.000
NE	603	INL-S Buildings	Square Feet	1,000 Square Feet	2010	4	4,129.511			\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2010	4	10,222.800	34,880.194	\$377.256	\$ 0.04	83415			2	4,206.954	0.000	277.116
NE	603	INL-S Excluded	Square Feet	1,000 Square Feet	2010	4	147.325			\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2010	4	46.891	6,470.528	\$136.008	\$ 2.90	83415			1	482.882	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2010	4	9.072	1,134.000	\$23.908	\$ 2.64	83415			1	80.381	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2010	4	0.110	10.120	\$0.266	\$ 2.42	83415			1	0.644	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish	Million Gallons	2010	4	0.000	#N/A	\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Water	Potable	Million Gallons	2010	4	222.763	\$0.000	\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2011	1	41,240.704	140,711.282	\$1,939.387	\$ 0.04	83415			2	15,402.987	0.000	1,014.610
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2011	1	443.911	61,259.718	\$1,198.824	\$ 2.70	83415			1	4,571.384	0.000	0.000
NE	603	INL-S Buildings	LPG	Billion BTUs	2011	1	0.925	925.000	\$13.559	\$ 14.66	83415			1	49.155	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2011	1	94.096	8,656.832	\$238.447	\$ 2.53	83415			1	550.947	0.000	0.000
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2011	1	8,644.100	29,493.669	\$336.389	\$ 0.04	83415			2	3,228.484	0.000	212.663
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2011	1	58.724	8,103.912	\$226.043	\$ 3.85	83415			1	604.738	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2011	1	5.169	646.125	\$13.693	\$ 2.65	83415			1	45.799	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2011	1	0.122	11.224	\$0.309	\$ 2.53	83415			1	0.714	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish	Million Gallons	2011	1	0.000	#N/A	\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Water	Potable	Million Gallons	2011	1	179.627	\$0.000	\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2011	2	47,479.092	161,998.662	\$1,776.477	\$ 0.04	83415			2	17,732.962	0.000	1,168.088
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2011	2	567.643	78,334.734	\$1,855.218	\$ 3.23	83415			1	5,845.573	0.000	0.000
NE	603	INL-S Buildings	LPG	Billion BTUs	2011	2	1.517	1,517.000	\$22.351	\$ 14.73	83415			1	80.615	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2011	2	138.607	12,751.844	\$373.866	\$ 2.71	83415			1	811.566	0.000	0.000

Utility/Fuel Consumption and Cost										Notes				Estimated GHG Emissions			
PSO	Site #	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU x 10 ⁶	Cost (1,000 \$)	\$/Unit	Main Site Zip Code	Additional Information	SFO Notes	Scope	Anthropogenic MTCO ₂ e	Biogenic MTCO ₂ e	Scope 3 - T&D Loss, MTCO ₂ e
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2011	2	3,306,100	11,280,413	\$168,543	\$ 0.05	83415			2	1,234,795	0.000	81,337
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2011	2	46,397	6,402,786	\$171,165	\$ 3.69	83415			1	477,795	0.000	0.000
NE	603	INL-S Buildings	Gasoline	1,000 Gallons	2011	2	5,646	705,750	\$17,088	\$ 3.03	83415			1	50,026	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2011	2	0.176	16,192	\$0.509	\$ 2.89	83415			1	1,031	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish		2011	2	0.000	#N/A	\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Water	Potable	Million Gallons	2011	2	149,791		\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2011	3	36,088,557	121,134,156	\$1,343,124	\$ 0.04	83415			2	13,478,712	0.000	887,856
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2011	3	231,911	32,003,718	\$766,505	\$ 3.39	83415			1	2,385,213	0.000	0.000
NE	603	INL-S Buildings	LPG	Billion BTUs	2011	3	0.273	573,000	\$7,857	\$ 13.71	83415			1	30,450	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2011	3	46,468	4,275,056	\$119,348	\$ 2.57	83415			1	272,077	0.000	0.000
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2011	3	8,008,700	30,055,284	\$313,242	\$ 0.04	83415			2	3,289,961	0.000	216,713
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2011	3	39,784	5,490,192	\$155,308	\$ 3.90	83415			1	409,695	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2011	3	5,923	740,375	\$21,194	\$ 3.58	83415			1	52,480	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2011	3	0.000	#N/A	\$0.000	\$ NA	83415			1	0.000	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish		2011	3	0.000	#N/A	\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Water	Potable	Million Gallons	2011	3	212,791		\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2011	4	31,167,911	106,344,912	\$1,066,893	\$ 0.03	83415			2	11,640,900	0.000	766,798
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2011	4	130,220	17,970,360	\$424,129	\$ 3.26	83415			1	1,341,002	0.000	0.000
NE	603	INL-S Buildings	LNG	Billion BTUs	2011	4	0.000	0.000	\$0.000	\$ NA	83415			1	0.000	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2011	4	7,983	734,436	\$20,232	\$ 2.53	83415			1	46,742	0.000	0.000
NE	603	INL-S Buildings	Square Feet	1,000 Square Feet	2011	4	3,934,490		\$20,232	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2011	4	7,781,200	26,549,454	\$306,594	\$ 0.04	83415			2	2,906,200	0.000	191,434
NE	603	INL-S Excluded	Square Feet	1,000 Square Feet	2011	4	145,584		\$306,594	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2011	4	65,828	9,084,264	\$249,164	\$ 3.79	83415			1	677,895	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2011	4	6,529	816,125	\$23,177	\$ 3.55	83415			1	57,849	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2011	4	0.000	0.000	\$0.000	\$ NA	83415			1	0.000	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish		2011	4	0.000	#N/A	\$0.000	\$ NA	83415				0.000	0.000	0.000
NE	603	INL-S Water	Potable	Million Gallons	2011	4	311,776		\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2012	1	45,920,520	156,680,814	\$1,563,659	\$ 0.03	83415			2	17,150,851	0.000	1,129,744
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2012	1	345,405	47,665,890	\$1,193,596	\$ 3.46	83415			1	3,556,972	0.000	0.000
NE	603	INL-S Buildings	LNG	Billion BTUs	2012	1	1,160	1,160,000	\$15,257	\$ 13.15	83415			1	61,644	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2012	1	105,582	9,713,544	\$259,315	\$ 2.83	83415			1	618,199	0.000	0.000
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2012	1	8,792,100	29,998,645	\$310,555	\$ 0.04	83415			2	3,283,761	0.000	216,305
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2012	1	45,076	6,220,488	\$200,210	\$ 4.44	83415			1	464,191	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2012	1	6,605	825,625	\$21,412	\$ 3.24	83415			1	58,523	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2012	1	0.000	5,888	\$0.192	\$ 3.00	83415			1	0.375	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish		2012	1	0.000	#N/A	\$0.000	\$ NA	83415			NA	0.000	0.000	0.000
NE	603	INL-S Water	Potable	Million Gallons	2012	1	189,964		\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2012	2	49,041,243	167,328,721	\$1,754,943	\$ 0.04	83415			2	18,316,409	0.000	1,206,520
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2012	2	445,193	61,436,634	\$1,442,245	\$ 3.24	83415			1	4,584,566	0.000	0.000
NE	603	INL-S Buildings	LNG	Billion BTUs	2012	2	1,247	1,247,000	\$15,161	\$ 12.16	83415			1	66,267	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2012	2	144,231	13,269,252	\$398,187	\$ 2.76	83415			1	844,495	0.000	0.000
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2012	2	9,341,400	31,872,857	\$322,246	\$ 0.03	83415			2	3,488,919	0.000	229,819
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2012	2	58,513	8,074,794	\$220,569	\$ 3.77	83415			1	602,565	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2012	2	4,847	605,875	\$15,438	\$ 3.19	83415			1	42,946	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2012	2	0.035	3,320	\$0.108	\$ 3.09	83415			1	0.205	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish		2012	2	0.000	#N/A	\$0.000	\$ NA	83415				0.000	0.000	0.000
NE	603	INL-S Water	Potable	Million Gallons	2012	2	186,027		\$0.000	\$ -	83415			NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2012	3	32,922,362	110,966,599	\$1,199,976	\$ 0.04	83415			2	12,146,774	0.000	800,120
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2012	3	178,818	24,676,884	\$587,489	\$ 3.29	83415			1	1,841,463	0.000	0.000
NE	603	INL-S Buildings	LNG	Billion BTUs	2012	3	0.682	682,000	\$10,330	\$ 15.18	83415			1	36,242	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2012	3	29,135	2,680,420	\$73,097	\$ 2.51	83415			1	170,590	0.000	0.000

Utility/Fuel Consumption and Cost										Notes				Estimated GHG Emissions			
PSO	Site #	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU x 10 ⁻⁶	Cost (1,000 \$)	\$/Trk	Main Site Zip Code	Additional Information	SFO Notes	Scope	Anthropogenic MtCO ₂ e	Biogenic MtCO ₂ e	Scope 3 - T&D Loss, MtCO ₂ e
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2012	3	5,169,200	17,637.310	\$211,421	\$	0.04	83415		2	1,930,644	0.000	127,173
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2012	3	33,253	4,630,314	\$123,396	\$	3.68	83415		1	345,528	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2012	3	5,264	658,000	\$18,916	\$	3.59	83415		1	46,641	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2012	3	0.033	4,676	\$0,154	\$	2.91	83415		1	0,310	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish	Potable	2012	3	0.000	#N/A	\$0,000	\$	-	83415		NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Million Gallons	2012	4	176,961		\$0,000	\$	-	83415		NA	0.000	0.000	0.000
NE	603	INL-S Buildings	Electricity	Megawatt Hour	2012	4	29,735,170	101,456,400	\$1,154,635	\$	0.04	83415		2	11,105,786	0.000	731,549
NE	603	INL-S Buildings	Fuel Oil	1,000 Gallons	2012	4	41,026	5,661,588	\$104,436	\$	2.55	83415		1	422,465	0.000	0.000
NE	603	INL-S Buildings	LNG	Billion BTU	2012	4	0.000	0.000	\$0,000	\$	NA	83415		1	0.000	0.000	0.000
NE	603	INL-S Buildings	LPG	1,000 Gallons	2012	4	1,935	178,020	\$3,993	\$	1.75	83415		1	11,330	0.000	0.000
NE	603	INL-S Buildings	Square Feet	1,000 Square Feet	2012	4	4,130,432		\$	-	83415		NA	NA	0.000	0.000	0.000
NE	603	INL-S Excluded	Electricity	Megawatt Hour	2012	4	4,274,100	14,983,229	\$220,505	\$	0.05	83415		2	1,596,333	0.000	105,152
NE	603	INL-S Excluded	Square Feet	1,000 Square Feet	2012	4	145,584		\$	-	83415		NA	NA	0.000	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Diesel	1,000 Gallons	2012	4	21,796	3,007,848	\$81,127	\$	3.72	83415		1	224,455	0.000	0.000
NE	603	INL-S Vehicles and Equipment	Gasoline	1,000 Gallons	2012	4	4,211	526,375	\$14,667	\$	3.48	83415		1	37,311	0.000	0.000
NE	603	INL-S Vehicles and Equipment	LPG	1,000 Gallons	2012	4	0.008	0,736	\$0,022	\$	2.75	83415		1	0,047	0.000	0.000
NE	603	INL-S Water	Aquifer Replenish	Potable	2012	4	0.000	#N/A	\$0,000	\$	NA	83415		NA	0.000	0.000	0.000
NE	603	INL-S Water	Potable	Million Gallons	2012	4	249,662		\$0,000	\$	-	83415		NA	0.000	0.000	0.000

List of Operating On-Site Renewable Energy Systems

Requirements: EPCa 2005, DOE O-436.1, E.O. 13423, E.O. 13514

Instructions: Update the list of currently operating on-site renewable energy systems and address SPO requests. For additional guidance see comments in row 9 of each column and Appendix C and I of the Site Sustainability Plan Guidance. Purchased renewable energy should be listed in the "Purchased RE" worksheet. Newly proposed or potential on-site renewable energy systems should be listed in the "Conservation & RE Measures" worksheet. Edited and new data cells should be highlighted.

Source: SiteLab

All data reviewed and is correct for FY 2013 CEDR Report - Ernest Fossum 10/23/12

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to be reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

System Information														
PSO	Site #	Site	System Description/Name	Location Description (e.g., building name, etc.)	System Location (Zip Code)	Year Installed (YYYY)	End Use Category	Siting Status - On Federal or Indian Land?	% of RECs Retained	On or Off Grid?	Does the site own the T&D system that delivers the electricity?	Scope 1 or 2 System?	Generator Nameplate Capacity (MW)	System Type/Category
NE	602	INL-J	Solar transpired wall	IF 663, Records Storage Facility,	83415	2001	Goal Subject	On Federal Land, On User Site	100% Non-Electric	100% Non-Electric	No Electricity is Delivered (Scope 1)			Solar Thermal (including
NE	603	INL-S	Solar transpired wall	MFC-774, ZPPR Support Wing,	83415	2010	Goal Subject	On Federal Land, On User Site	100% Non-Electric	100% Non-Electric	No Electricity is Delivered (Scope 1)			Solar Thermal (including
NE	603	INL-S	Solar transpired wall	MFC-682, MFC Machine Shop,	83415	2010	Goal Subject	On Federal Land, On User Site	100% Non-Electric	100% Non-Electric	No Electricity is Delivered (Scope 1)			Solar Thermal (including

Production/Consumption Information					Cost	Biomass Fuel Information				Notes		
Estimated Annual Renewable Electricity Output (MWh/Yr)	Estimated Annual Renewable Electricity Consumed (MWh/Yr)	Estimated Annual GHG Emissions Avoided (MTCO ₂ e/Yr)	Estimated Annual Renewable Thermal Output (10 ⁶ BTU/Yr)	Estimated Annual Renewable Thermal Consumed (10 ⁶ BTU/Yr)	Implementation Cost (\$)	Principal Biomass Fuel Type	Principal Biomass Fuel Use (10 ⁶ BTU/Yr)	Secondary/ Blend Fuel Type	Secondary/ Blend Fuel Use (10 ⁶ BTU/Yr)	Fuel Costs (\$)	Additional Information	SPO Notes
water and space condi-	0.000	0.000	102.400	102.400								
water and space condi-	0.000	0.000	259.800	259.800								
water and space condi-	0.000	0.000	239.900	239.900								

List of Purchased Renewable Energy

Revised: 05/01/2015, DOE O 4361, E.O. 13423, E.O. 13514

Instructions: Update the list of purchased renewable energy resources and address SPO requests. For additional guidance see comments in row 9 of each column and Appendix C and I of the Site Sustainability Plan Guidance. On-site operational renewable energy should be listed in the "Operating On-Site Renewables" worksheet. Edited and new data cells should be highlighted.

Source: Site Lab

All data reviewed, updated, and is correct for FY 2013 CEDR Report - Ernest Fossum 10/23/12

Purchase Information										Consumption Information				Cost		Notes	
PSO	Site #	Site	Type of Renewable Energy Purchased	System Type/Category	Source Location (Zip Code)	Service Year (YYYY)	Purchase Year (FY)	End Use Category	Purchase Term	Siting Status - On Federal or Indian Land?	Total Renewable Electricity Purchased (MWh/Yr)	Estimated Annual GHG Emissions Avoided (MTCO ₂ e/Yr)	Total Renewable Thermal Purchased (10 ⁶ BTU/Yr)	Annual Cost (\$)	\$/Unit	Additional Information	SPO Notes
NE	603	INL-S	Renewable Energy Credits	Wood and wood residu	31323		2007	Goal Subject	Short-Term (≤ 10)		6,800,000	5,262.486		\$ 19,924.00	\$ 2.93		
NE	603	INL-S	Renewable Energy Credits	Wind	76951		2008	Goal Subject	Short-Term (≤ 10)		6,600,000	3,356.081		\$ 18,678.00	\$ 2.83		
NE	603	INL-S	Renewable Energy Credits	Other	83415		2009	Goal Subject	Short-Term (≤ 10)		6,920,000	4,207.582		\$ 6,920.00	\$ 1.00		
NE	603	INL-S	Renewable Energy Credits	Wind	83415		2010	Goal Subject	Short-Term (≤ 10)		15,915,520	9,677.147		\$ 16,393.00	\$ 1.03		
NE	603	INL-S	Renewable Energy Credits	Wind	58579		2011	Goal Subject	Short-Term (≤ 10)		16,900,000	16,311.281		\$ 14,365.00	\$ 0.85		
NE	603	INL-S	Renewable Energy Credits	Wind	83415		2012	Goal Subject	Short-Term (≤ 10)		22,000,000	14,082.244		\$ 22,000.00	\$ 1.00	For FY 2012 - Increased purchase from 7.5% to 10% and purchased locally generated Green Power RECs from Idaho Falls Power	

Conservation and Renewable Energy Measures List

Environmental: EISA 2007, DOE O 436.1

Instructions: Update the list of conservation and renewable energy measures/projects and address SFO requests. For additional guidance see comments in row 10/11 of each column and Appendix C of the Site Sustainability Plan Guidance. Edited and new data cells should be highlighted.

Special Note: Information provided in this table will be used to report on EISA Section 432 June simplified reporting.

Source: Start at June 2012 EISA Sec 432 report

All data reviewed, updated, and is correct for FY 2013 CEDR Report - Envest Fossum 11/4/12

Measure/Project Description										Funding Overview						
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	
FNO	Site #	Site	HQ Measure #	If Covered, EISA 3452 Reporting Year (YYYY)	Has this measure been included in an official DOE budget request? If yes, provide Project/Measure #	Site Project #	Conservation Measure(s) Status	Conservation Measure(s) Type	Conservation Measure(s) Name or Description	Measure(s) Location (Zip Code)	Is this a multiple or single facility ECM?	Does the measure contribute to the reduction of deferred maintenance?	Is this effort/measure beyond typical O&M improvement to meet a goal?	Funding Source/Type (Actual or Potential)	Starting Year of Measure Implementation (Actual - YYYY)	Completion/Operational Year of Measure (Anticipated or Actual - YYYY)
NE 603	INL-S	NE-0603-0005		2012		ECM-001	Operational	Lighting Improvements	INL ESPC Project #2 MFC - Lighting Improvements		Yes	Yes	ESPC	2009	2010	
NE 603	INL-S	NE-0603-0006		2012		ECM-002	Operational	Boiler Plant Improvement	INL ESPC Project #2 MFC - Boiler Plant Improvements		Yes	Yes	ESPC	2009	2011	
NE 603	INL-S	NE-0603-0007		2012		ECM-003	Operational	Energy Related Process Improvements	INL ESPC Project #2 MFC - Compressed Air Improvements		Yes	Yes	ESPC	2009	2011	
NE 603	INL-S	NE-0603-0008		2012		ECM-004	Operational	Energy Related Process Improvements	INL ESPC Project #2 MFC - Digital EMS Controls		No	Yes	ESPC	2009	2011	
NE 603	INL-S	NE-0603-0009		2012		ECM-005	Operational	Solar Thermal (including water and space conditioning)	INL ESPC Project #2 MFC - Solar Thermal Treated Walls (2)		No	Yes	ESPC	2009	2011	
NE 603	INL-S	NE-0603-0016		2012		BEA	Operational	Advanced Metering System	Metering for HPSB Candidates	Multiple	No	Yes	M&R Direct	2011	2011	
NE 603	INL-S	NE-0603-0002-A		2012		BEA	Operational	Water & Sewer Conservation Systems	Water Leak Repairs - ATR Complex		Yes	No	M&R Direct	2009	2009	
NE 603	INL-S	EM-0603-0013		2012		CWI	Operational	Water & Sewer Conservation Systems	INTEC CFP-606 Water and Sewer Conservation Systems		Yes	Yes	Other	2010	2010	
NE 602	INL-1	NE-0602-0012		2012	No	SIF FY-12 #1	Operational	Other	INL Applied E&D for Project Development / Sustainability	Multiple	No	Yes	M&R Indirect	2012	2012	
NE 602	INL-1	NE-0602-0013		2012	No	SIF FY-12 #2	Operational	Chiller Plant Improvement	INL WCB Chiller Replacements	Multiple	Yes	Yes	M&R Indirect	2012	2012	
NE 602	INL-1	NE-0602-0014		2012	No	SIF FY-12 #3	Operational	Heating, Ventilating, and Air Conditioning (HVAC)	INL ESOB CO2 Controls	Single	No	Yes	M&R Indirect	2012	2012	
NE 602	INL-1	NE-0602-0015		2012	No	SIF FY-12 #4	Verified	Water & Sewer Conservation Systems	INL WCB Water Feature Replacements	Single	No	No	M&R Indirect	2013	2013	
NE 602	INL-1	NE-0602-0016		2012	No	SIF FY-12 #5	Operational	Water & Sewer Conservation Systems	INL IRC CF-602 Water Feature Replacements	Single	No	No	M&R Indirect	2012	2012	
NE 602	INL-1	NE-0602-0017		2012	No	SIF FY-12 #6	Operational	Lighting Improvements	INL WCB Light Features	Multiple	No	No	M&R Indirect	2012	2012	
NE 602	INL-1	NE-0602-0018		2012	No	SIF FY-12 #7	Verified	Lighting Improvements	INL WCB Lighting Controls	Multiple	No	Yes	M&R Indirect	2013	2013	
NE 602	INL-1	NE-0602-0019		2012	No	SIF FY-12 #8	Verified	Lighting Improvements	INL WCB External Lighting	Multiple	No	No	M&R Indirect	2013	2013	
NE 602	INL-1	NE-0602-0020		2012	No	SIF FY-12 #9	Operational	Lighting Improvements	INL IF-601 External Lighting	Single	No	No	M&R Indirect	2012	2012	
NE 602	INL-1	NE-0602-0021		2012	No	SIF FY-12 #10	Verified	Electric Motors & Drives	INL IRC Motors/Controls	Single	Yes	Yes	M&R Indirect	2013	2013	
NE 603	INL-S	NE-0603-0014		2012		BEA	Canceled	Other	INL ESPC Project #3 CFA, ATR Complex and SMC	Multiple	Yes	Yes	ESPC	N/A	2015	
NE 603	INL-S	NE-0603-0017		2012	No	BEA	Verified	Energy Related Process Improvements	ATR Backup Generator Set Replacement		Yes	Yes	ESPC	2013	2015	
NE 603	INL-S	EM-0603-0012		2012		CWI	Operational	Heating, Ventilating, and Air Conditioning (HVAC)	INTEC CFP-663 2nd Floor HVAC Upgrade		Yes	Yes	Other	2011	2011	
EM 603	INL-S	NE-0603-0018		2012	No	AMWTP	Identified	Other	All Process Buildings at KWMAC (AMWTP) Shutdown		No	No	Disposition	2018	2018	
EM 603	INL-S	NE-0603-0019		2012	No	CWI	Identified	Other	All Process Buildings at KWMAC (CWI) Shutdown		No	No	Disposition	2018	2018	
EM 603	INL-S	NE-0603-0020		2012	No	CWI	Identified	Other	CFP-659 New Waste Calume Facility/Process Shutdown		No	No	Disposition	2014	2016	
NE 602	INL-1	NE-0602-0022		2012	No	BEA	Identified	Building Automation Systems/EMCS	BAS System Installation and Programming	Single	No	Yes	M&R Indirect	2013	2013	

FY 2013 CEDR_Measures_Final_13-5-1126LSC_3.3 Conservation & RE Measures
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Measurement & Verification					Source Savings/Renewable Energy Output										Cost Savings			
(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)	(v)	(w)	(x)
Estimated Service Life	Are there plans to measure and verify the performance of this measure?	Type of M&V	MM	YYYY	Provide estimated energy saved or switched for each energy type, as applicable. If there are no savings associated with the measure enter "0". If estimated savings are unknown at this time enter "TBD".				Estimated Annual LFC/Propane Saved (10 ³ CFPYr)	Estimated Annual Natural Gas Saved (10 ³ CFPYr)	Estimated Annual Fuel/Oil Saved (10 ³ Gal/Yr)	Estimated Annual Electricity Saved (MMWh/Yr)	Estimated Annual Renewable Thermal Output (10 ⁹ BTU/Yr)	Estimated Annual Renewable Electricity Output (MMWh/Yr)	Estimated Annual Renewable Water Cost Savings (\$/Yr)	Estimated Annual Energy Savings (\$/Yr)	Estimated Annual Cost Savings (\$/Yr) from switching to a renewable energy source	
					Estimated Annual LFC/Propane Saved (10 ³ CFPYr)	Estimated Annual Natural Gas Saved (10 ³ CFPYr)	Estimated Annual Fuel/Oil Saved (10 ³ Gal/Yr)	Estimated Annual Electricity Saved (MMWh/Yr)										Estimated Annual Renewable Thermal Output (10 ⁹ BTU/Yr)
25 \$ 1,874,000					666,837	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 42,639	\$ -
25 \$ 22,199,000					Energy Saving E	580,266	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 1,480,896	\$ 1,278
25 \$ 1,230,000					Energy Saving E	289,952	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 8,791	\$ -
25 \$ 7,521,000					Energy Saving E	3,632,427	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 119,551	\$ -
25 \$ 757,000					Fuel Switching I	3,595	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 0.03	\$ -
25 \$ 200,000					Energy Saving E	971,400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 34,000	\$ -
25 \$ 164,681					Energy Saving E	103,585	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 3,904	N/A
25 \$ 325,434					Energy Saving E	1,228,019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 61,412	\$ -
N/A					Energy Saving E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ -	\$ -
25 \$ 312,000					Energy Saving E	TBD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	TED	\$ -
20 \$ 34,000					Energy Saving E	37,100	0.000	2,901,500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 28,000	\$ -
30 \$ 164,900					Water Saving E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ -	\$ 2,900
30 \$ 54,100					Water Saving E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ -	\$ 700
25 \$ 118,000					Energy Saving E	98,060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 5,000	\$ -
25 \$ 24,300					Energy Saving E	174,080	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 8,800	\$ -
25 \$ 74,100					Energy Saving E	72,230	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 3,600	\$ -
25 \$ 12,200					Energy Saving E	1,541	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 100	\$ -
25 \$ 191,400					Energy Saving E	78,520	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 3,600	\$ -
25 \$ 15,000,000					Energy Saving E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 1,000,000	N/A
30 \$ 750,000					Energy Saving E	0.000	30,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 90,000	\$ -
25 \$ 41,000					Energy Saving E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	N/A	N/A
N/A					Energy Saving E	22,000,000	0.000	0.000	206,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 886,500	\$ 5,000
N/A					Energy Saving E	11,000,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 403,250	\$ -
N/A					Energy Saving E	TBD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	TED	TED
25 \$ 20,000					Energy Saving E	182,020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 12,610	\$ -

			Notes	
(am)	(an)	(ao)	(ap)	
Estimated Annual Ancillary Cost Savings (\$Yr)	Site Priority	Additional Information	SFO Comments/Notes	
\$ 13,974	Complete	Construction Complete		
\$ 29,994	Complete	Construction Complete		
\$ 9,071	Complete	Construction Complete		
\$ -	Complete	Construction Complete		
\$ -	Complete	Construction Complete Update: The original amount input was for fuel oil in Mbu. 3,595 gallons is correct. - EF		
\$ -	Complete	Construction Complete		
\$ -	Complete	Construction Complete - All identified water leaks at the INTL ATR Complex have been repaired in conjunction with other program project work scope.		
N/A	Complete	Construction Complete		
\$ -	Complete	R&D Complete		
\$ -	Complete	Construction Complete		
\$ -	Complete	Construction Complete		
\$ -	2	Strategic Investment Funding - Internal (Design) Update: This ECM was postponed to 2013 due to insufficient funds to complete in 2012. - EF		
\$ -	Complete	Construction Complete		
\$ -	Complete	Construction Complete		
\$ -	2	Strategic Investment Funding - Internal (Design) Update: This ECM was postponed to 2013 due to insufficient funds to complete in 2012. - EF		
\$ -	Complete	Construction Complete		
\$ -	2	Strategic Investment Funding - Internal (Design) Update: This ECM was postponed to 2013 due to insufficient funds to complete in 2012. - EF		
\$ -	Complete	Construction Complete		
\$ -	2	Strategic Investment Funding - Internal (Design) Update: This ECM was postponed to 2013 due to insufficient funds to complete in 2012. - EF		
\$ -	Complete	Construction Complete		
N/A		Performing Investment Grade Audit		
		Potential ESFC ECM to install the purchased generators only.		
N/A	Complete	EM Program. Update: This was a DOE EM Direct funded project. All work has been completed. - EF	SFO Note: Completion year on or before 2011, please verify/update conservation measure status. Completion year on or before 2011, please verify/update conservation measure status:	
\$ -		AMWTP mission complete, all buildings shutdown with no energy or water use. conceptual and costs and a timeline for implementation have not been developed. per Ken Whitham - RE	Update: This activity is still very much	
\$ -		CWI mission complete, all buildings shutdown with no energy use. conceptual and costs and a timeline for implementation have not been developed. per Ken Whitham - RE	Update: This activity is still very much	
\$ -		INTEC New Waste Calorie Facility mission complete, CPP-659 shut down with no energy or water use		
\$ -	3	Strategic Investment Funding - Internal (2013)		

Measure/Project Description										Funding Overview						
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
PSO	Site #	Site	HQ Measure #	If Covered, EISA 54C2 Reporting Year (YYYY)	Has this measure been included in an official DOE budget request? If yes, provide Project/Measure #	Site Project #	Conservation Measure(s) Status	Conservation Measure(s) Type	Conservation Measure(s) Name or Description	Measure(s) Location (Zip Code)	Is this a multiple or single facility ECM?	Does the measure contribute to the reduction of deferred maintenance?	Is this effort/measure beyond typical O&M improvement to meet a goal?	Funding Source/Type (Actual or Potential)	Starting Year of Measure Implementation (Anticipated or Actual - YYYY)	Completion/Operational Year of Measure (Anticipated or Actual - YYYY)
NE	602	INL-1	NE-0602-0023	2012	No	BEA	Identified	Building Automation Systems/EMCS	EAS System Upgrade and Programming		Single	No	Yes	M&R Indirect	2013	2013
NE	603	INL-3	NE-0603-0021	2012	No	BEA	Identified	Heating, Ventilating, and Air Conditioning (HVAC)	Energy and Water Upgrades - Various Facilities (FY 2013)		No	No	Yes	M&R Indirect	2013	2013
NE	602	INL-1	NE-0602-0024	2012	No	BEA	Identified	Heating, Ventilating, and Air Conditioning (HVAC)	Energy and Water Upgrades - Various Facilities (FY 2014)		No	No	Yes	M&R Indirect	2014	2014
NE	603	INL-3	NE-0603-0022	2012	No	BEA	Identified	Heating, Ventilating, and Air Conditioning (HVAC)	Energy and Water Upgrades - Various Facilities (FY 2015)		No	No	Yes	M&R Indirect	2015	2015
NE	603	INL-3	NE-0603-0001	2012		BEA	Identified	Standard Metering Systems	INL Sitewide Electric and Water Meter Installations		Multiple	No		ESPC	2013	2014
NE	603	INL-3	NE-0603-0002-B	2012		BEA	Identified	Water & Sewer Conservation Systems	Water Leak Repairs - CFA			Yes		Other	2013	2015
NE	603	INL-3	NE-0603-0003	2012		BEA	Identified	Wind	INL On-Site Wind Farm Development - Site Development, Electrical Infrastructure, and NEPA Documentation only			No		Other	2013	2015
NE	603	INL-3	NE-0603-0004	2012		BEA	Identified	Solar Photovoltaic	INL On-Site Solar Array Development and Installation					Other	2013	2015
NE	603	INL-3	NE-0603-0023	2012	No	BEA	Identified	Energy Related Process Improvements	ATR Back-Up Generator Set Elimination - Commercial Power			Yes	Yes	Line Item	2017	2018
NE	603	INL-3	NE-0603-0024	2012	No	BEA	Identified	Water & Sewer Conservation Systems	ATR Complex Sewer Lagoon Retaining			No	Yes	OPP	2017	2018
EM	603	INL-3	NE-0603-0025	2012	No	CWI	Identified	Boiler Plant Improvement	Replaces Central Boiler with Distributed Steam and Heating Systems		Single	Yes	Yes	M&R Direct	2014	2015
EM	603	INL-3	NE-0603-0026	2012	No	CWI	Identified	Water & Sewer Conservation Systems	End Operations of Liquid Waste Management System - INTEC		Multiple	Yes	Yes	M&R Direct	2015	2017
EM	603	INL-3	NE-0603-0027	2012	No	CWI	Identified	Advanced Metering System	Install Energy and Water Metering - INTEC		Multiple	No	Yes	M&R Direct	2012	2015
NE	603	INL-3	EM-0603-0015	2012		CWI	Cancelled	Other	INL ESPC Project #4 INTEC and RWMC		Multiple	Yes		ESPC	N/A	N/A
NE	602	INL-1	NE-0602-0011	2012		BEA and CWI	Identified	Heating, Ventilating, and Air Conditioning (HVAC)	Idaho Falls Facilities UESC Project: Energy and Water			Yes		UESC	2012	2013
NE	602	INL-1	NE-0602-0010	2012		BEA and CWI	Operational	Other	Idaho Falls Facilities UESC Project - Proposal Development/ Energy Surveys			No		UESC	2009	2010

Measurement & Verification							Source Savings/Renewable Energy Output										Cost Savings															
(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)	(ai)	(aj)	(ak)	(al)
Estimated Service Life	Estimated Implementation Cost (\$)	Are there plans to measure and verify the performance of this measure?	If M&V has been conducted, provide type and date	Type of M&V	MM	YYYY	Is this a energy saving measure or renewable energy system?	Provide estimated energy saved or switched for each energy type, as applicable. If there are no savings associated with the measure enter "0". If estimated savings are unknown at this time enter "TBD".										Estimated Annual Energy Cost Savings (\$/Yr)				Estimated Annual Energy Cost Savings (\$/Yr) from switching to a renewable energy source										
								Estimated Annual Fuel Oil Saved (10 ³ Gal/Yr)	Estimated Annual Natural Gas Saved (10 ³ Ccf/Yr)	Estimated Annual LPG/Propane Saved (10 ³ Gal/Yr)	Estimated Annual Short-Term Fuel Oil Saved (Short-Term Yr)	Estimated Annual Steam Saved (10 ³ BTU/Yr)	Estimated Annual Other Saved (10 ³ BTU/Yr)	If "Other", what is "Other"?	Estimated Annual Potable Water Savings (10 ³ Gal/Yr)	Estimated Annual LTA (Non-Potable) Water Savings (10 ³ Gal/Yr)	Estimated Annual Renewable Electricity Output (MWh/Yr)	Estimated Annual Renewable Thermal Output (10 ³ BTU/Yr)	Estimated Annual Energy Cost Savings (\$/Yr)	Estimated Annual Water Cost Savings (\$/Yr)												
25	\$ 5,000						Energy Saving E	101,460	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 5,080	\$ -	
25	\$ 1,000,000						Energy Saving E	1,000,000	0.000	0.000	50.000	0.000	0.000	0.000	0.000	0.000	1,000,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 100,000	\$ 750
25	\$ 1,000,000						Energy Saving E	1,000,000	0.000	1,000,000	0.000	0.000	0.000	0.000	0.000	0.000	1,000,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 100,000	\$ 750
25	\$ 1,240,000						Energy Saving E	2,403,077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	N/A	N/A	N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 85,901	N/A	
25	\$ 269,016						Energy Saving E	169,007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7,482,500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 6,370	N/A	
25	\$ 2,500,000						Fuel Switching I	52,560,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	N/A	N/A	N/A	52,560,000	N/A	\$ -	N/A									N/A
25	\$ 9,000,000						Fuel Switching I	1,051,200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	N/A	N/A	N/A	1,051,200	N/A	\$ -	N/A									N/A
30	\$ 60,000,000						Energy Saving E	0.000	300,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 900,000	\$ -	
25	\$ 1,100,000						Water Saving E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	38,000,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ -	\$ 26,000	
30	TBD						Energy Saving E	0.000	300,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 1,000,000	\$ -	
25	TBD						Energy Saving E	TBD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	56,000,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	TBD	TBD	
25	TBD						Energy Saving E	750,990	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4,000,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 27,035	\$ 2,800	
25	N/A						Energy Saving E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	N/A	N/A	N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 500,000	N/A	
25	\$ 2,100,000						Energy Saving E	7,318,763	0.000	9,446,704	0.000	0.000	0.000	0.000	0.000	0.000	5,259,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$ 475,581	\$ 4,733	
25	\$ 250,000						Energy Saving E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	N/A	N/A	N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	N/A	N/A	

		Notes	
(mm)	(mm)	(mm)	(mm)
Estimated Annual Ancillary Cost Savings (\$/yr)	Size Priority	Additional Information	SFO Comments/Notes
\$ -	-	3 Strategic Investment Funding - Internal (2013)	
\$ -	-	1 Strategic Investment Funding - Internal (2013) Projects to be developed in FY 2012	
\$ -	-	4 Strategic Investment Funding - Internal (2014) Projects to be developed in FY 2013	
\$ -	-	5 Strategic Investment Funding - Internal (2015) Projects to be developed in FY 2014	
\$ -	-	3 INL Metering Fan developed - No funding identified. Will include in ESFC if project funding is not available	
\$ -	-	Bore holes failed to positively identify leaks. Further investigation is necessary to pinpoint the leaks as identified by the Leak Study for repair. 6 Update: This work has been postponed and may be completed by ESFC #3. The estimated completion year has been modified to coincide with the ESFC project completion in FY 2015 - EF	SFO Note: Completion year on or before 2011, please verify/update conservation measure status; Completion year on or before 2011, please verify/update conservation measure status
\$ -	-	Identified Opportunity - Project Work Scope has been developed and infrastructure support work may begin if funding is made available Update: This project will be reduced in size and worked as part of ESFC #3. Final project size is not yet determined. The assumption is that EE generated is also energy saved - EF	SFO Request: Changed the 'Estimated Annual Electricity Saved' value to the 'Estimated Annual RE consumed' value provided. Please review and update/confirm.
\$ -	-	Identified Opportunity - Project Work Scope not yet been developed and worked as part of ESFC #3. Final project size is not yet determined. The assumption is that RE generated is also energy saved - EF	SFO Note: Changed the 'Estimated Annual Electricity Saved' value to the 'Estimated Annual RE consumed' value provided; Completion year on or before 2011, please verify/update conservation measure status
\$ -	-	Line Item project to eliminate the need to run the generators whenever the Reactor is operating. Final solution to significant operational issue	
\$ -	-	Current sewage lagoon is significantly oversized; project to evaluate, design, and construct a resizing due in lagoon	
\$ -	-	Project Concept Identified, Funding Source Not Determined conceptual and costs and a timeline for implementation have not been developed. per Ken Whitham - RK	Update: This activity is still very much
\$ -	-	Project Concept Identified, Funding Source Not Determined conceptual and costs and a timeline for implementation have not been developed. per Ken Whitham - RK	Update: This activity is still very much
\$ -	-	Project Concept Identified, Funding Source Not Determined conceptual and costs and a timeline for implementation have not been developed. per Ken Whitham - RK	Update: This activity is still very much
N/A		ESFC Project Development on hold EM Program. Update: ESFC project cancelled - Roger Jones - EF	
N/A		Final project still being developed/detained. Update: A portion of this project will be worked by CWI to upgrade several Idaho Falls facilities - EF	
\$ -	-	Survey Only - No Project projects for internal INL funding - EF	SFO Note: Completion year on or before 2011, please verify/update conservation measure status; Completion year on or before 2011, please verify/update conservation measure status

Building Inventory Changes, HPSB Compliance and Projected Utilities Consumption

Requirement(s): EPCa 2005, EISA 2007, DOE O 436.1

Instructions: Update this worksheet with information on new building construction, major renovation, replacements, and buildings that are to be disposed of in the near future, and address SPO requests. For additional guidance see comments in row 9 of each column and Appendix C of the Site Sustainability Plan
Source: Site/Lab All data reviewed, updated, and is correct for FY 2013 CEDR Report – Ernest Fossum 11/14/12

Basic Information																
PSO	Site #	Site	Project ID	Building/Project Name	Location (Zip Code)	Planned or Actual CD 2 Date (MM/YY)	Current CD Status	Total Project Cost (\$ M)	Number/Type of Facilities	Facility Change Status	Anticipated Electricity Usage (kWh/Yr)	Anticipated Natural Gas Usage (10 ³ Cubic Feet/Yr)	Estimated Annual GHG Emissions Avoided (MTCO ₂ e/Yr)	Anticipated Potable Water Usage (10 ³ Gal/Yr)	Anticipated ILA Water Usage (10 ³ Gal/Yr)	Excluded from Energy Intensity?
NE 602	INL-I	Lease		Energy Systems Laboratory (ESL)	83415	N/A	Complete	\$22.0		New	TBD	TBD	TBD	TBD		
NE 602	INL-I	Lease		Research and Education Facility	83415	N/A	Complete	\$50.0		New	TBD	TBD	TBD	TBD		
NE 603	INL-S			MFC Dial Room Replacement	83415	N/A	Complete	\$6.8		Replacement	TBD	0	TBD	TBD		
NE 603	INL-S			Irradiated Materials Characterization Lab (IMCL)	83415	N/A	Complete	\$10.0		New	TBD	0	TBD	TBD		
NE 603	INL-S			MFC Technical Support Building	83415	N/A	Complete	\$12.0		New	TBD	0	TBD	TBD		
NE 603	INL-S			ATR Complex Dial Room	83415	N/A	Complete	\$10.3		New	TBD	0	TBD	TBD		

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Field that need to be reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated field. No action required.

Guidance. Edited and new data cells should be highlighted.

		For compliance with Sec 438 of EISA	For compliance with DOE O 436.1	Complete this section if <i>new</i> building project was CD-1 or lower on 10/1/06		Complete this section if construction has been completed	Notes	
Expected Building Occupancy or Removal Year (YYYY)	Anticipated Square Footage	If > 5,000 sq ft, will it maintain or restore pre-development hydrology?	What GP equivalency will the building achieve?	Estimated percentage below ASHRAE Std 90.1 in terms of energy use	If not at least 30% below Std 90.1, will design achieve maximum level of energy efficiency that is life-cycle cost-effective?	In terms of energy use, percentage below ANSI/ASHRAE/IESNA Standard 90.1 achieved	Additional Information	SPO Comments/Notes
2012	91,000 Yes	LEED® Gold	LEED® Gold	Planning for 30%	Yes		Facility is complete and occupied. LEED certification is pending. Facility Change Status is New.	SPO Request: Please review and update facility change status
2013	148,000 Yes	LEED® Gold	LEED® Gold	Planning for 30%	Yes		Under Construction. Facility Change Status is New.	SPO Request: Please review and update facility change status
2012	1,856 Yes	Not Applicable	Not Applicable	Not Applicable	Yes		Facility is complete and occupied.	
2012	12,000 Yes	LEED® Gold	LEED® Gold	Planning for 30%	Yes		Facility is complete and occupied. LEED certification is pending.	
TBD	17,000 Yes	LEED® Gold	LEED® Gold	Planning for 30%	Yes		The MFC Technical Support Facility is currently in an inactive status and will likely be cancelled.	
2015	1,800 Yes	Not Applicable	Not Applicable	Not Applicable	Yes			

Source Energy Savings Credit

Requirement(s): E.O. 13123

Instructions: Optional, complete the tables below for projects that increase site energy use but save source energy. For additional guidance see: http://www.eere.energy.gov/femp/pdfs/sec502e_%20guidance.pdf. Edited and new data cells should be highlighted.

Source: Site/Lab

EPACT Goal Subject Buildings

Name of Project Saving Source Energy in FY 2011 (insert additional rows as necessary)	Annual Site Energy Increase with the Project	Annual Source Energy Saved with the Project	Adjustment to Annual Site Energy
	(10 ⁶ BTU/Yr)	(10 ⁶ BTU/Yr)	(10 ⁶ BTU/Yr)
Project No. 1	0.0	0.0	0.0
Project No. 2	0.0	0.0	0.0
Project No. 3	0.0	0.0	0.0
Totals	0.0	0.0	0.0

EPACT Excluded Buildings

Name of Project Saving Source Energy in FY 2011 (insert additional rows as necessary)	Annual Site Energy Increase with the Project	Annual Source Energy Saved with the Project	Adjustment to Annual Site Energy
	(10 ⁶ BTU/Yr)	(10 ⁶ BTU/Yr)	(10 ⁶ BTU/Yr)
Project No. 1	0.0	0.0	0.0
Project No. 2	0.0	0.0	0.0
Project No. 3	0.0	0.0	0.0
Totals	0.0	0.0	0.0

Data Centers

Requirement(s): HISA 2007, DOE O 436.1
Instructions: Update the list of data centers and complete all fields, if not using DOEGRIT. For additional guidance see comments in row 9 of each column and Appendix C of the Site Sustainability Plan Guidance.
Source: Site/Lab All data reviewed, updated, and is correct for FY 2013 CEDR Report - Ernest Fossum 11/20/12

Basic Information																
PSO	Site #	Site	GOCO / FED	Data Center Name	Data Center Function	Assigned DCEF POC	Data Center POC	Target Date for Closure (CY) (If Scheduled)	Phase of Closure	Street Address	Street Address 2	City	State	Zip Code	Country	Gross Floor Area (Sq.Ft.)
NE	602	INL-I	GOCO	IF-608 - Business Sys General	General		Tina Chapman			1155 Foote Drive		Idaho Falls	ID	83415 USA	USA	1,800
NE	602	INL-I	GOCO	IF-608 - External Ho General	General		Tina Chapman			1155 Foote Drive		Idaho Falls	ID	83415 USA	USA	1,284
NE	602	INL-I	GOCO	IF-654	General		Jeff Stafion			2525 Fremont Avenue		Idaho Falls	ID	83415 USA	USA	3,700
EM	602	INL-I	GOCO	IF-608 - Room B5 CV General	General		Bob Bell			1155 Foote Drive		Idaho Falls	ID	83415 USA	USA	812
EM	603	INL-S	GOCO	RWMC-658	General		Bill Bowman			Scoville, ID		Idaho Falls	ID	83415 USA	USA	48

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue
Orange	Fields that need to be reviewed and updated with changes highlighted in blue
Yellow	Optional data field to be completed, if applicable and available
Red	Calculated fields. No action required

Facility				Calculated fields: No action required.		IT Facilities, Energy										Physical Servers				
Facility Cost (\$/Sq.Ft./Yr)	Electricity Included in Cost? (Y/N)	Ownership Type	Data Center Tier / Type	Electricity Metered (Y/N)	Total Data Center (Facility) Power Capacity (kW)	Average Data Center Electricity Usage (kW)	Total Data Center IT Power Capacity (kW)	Average IT Electricity Usage (kW)	Cost Per kWh (if known)	Watts per Sq.ft.	Estimated Power Usage Effectiveness (PUE)	Has A DC Pro Assessment been Conducted?	Current Rack Count (#)	Sq. Ft. per Rack	Super Computers or HPC Systems	Mainframes (IBM or compatible)	Mainframes (Other)	Windows Servers		
Yes	Yes	1: Agency Owned	7: Unknown	Yes	1,500,000	195,794,260	300,000	96,618,070	\$0.05	53,676.71	2.03	No	51	35	0	0	0	192		
	Yes	1: Agency Owned	7: Unknown	Yes	Combined with Business Systems Data Center above															
TBD	Yes	3: Lease and retrofit	3: Tier III	Yes	1,500,000	\$45,000	1,000,000	408,000	\$0.05	110.27	1.34	No	37	100	8	0	0	40		
Yes	Yes	1: Agency Owned	7: Unknown	No	Unknown	TBD	150,000	78,500	\$0.05	96.67	Incomplete	No	27	30	0	0	0	48		
Yes	Yes	1: Agency Owned	7: Unknown	No	Unknown	Unknown	Unknown	1,200	\$0.03	25.00	Incomplete	No	1	48	0	0	0	1		

Virtualization							Network Storage				Notes
Unix Servers	Linux Servers	Other	Total Physical Server Count (#)	Total Virtual Host Count (#)	Total Virtual OS Count (#)	Total Operating Systems Count (#)	Average CPU Utilization of All Physical Servers	SAN/NAS/ DAS - Total (TB)	SAN/NAS/ DAS - Used (TB)	Percent Used	Additional Information
26	89	1	325	17	190	498	7%	100	56	68%	The power for these two data centers are combined through one UPS, so the PUE 68% is a combined calculation from average consumption in kWh.
15	40	32	131	4	25	152	8%	34	13	68%	
15	40	27	150	20	182	312	69%	370	180	48%	
48% EROB Data Center PUE is calculated from average demand in kW.											
15	40	27	150	20	182	312	16%	337.6	181.7	68%	
0	0	1	2	0	0	2	16%	18	6	68%	

Fugitive Emissions: Refrigerants and Fluorinated Gases, Mixed Refrigerants

Requirement(s): DOE O 436.1, E.O. 13514

"Additional Information" column.

Source: Site/Lab

[illegible]

Methodology

ENE	653 IN-5	2008	#N/A	-	#N/A	#N/A	#N/A	#N/A	#N/A	Raw data not available for F108. Antropogenic values were verified on 108 0.2, which indicates the range was 0 for F108. update corresponding fugitives data to ensure emissions are not double	SFO Request: Due to the collection methodology any roll up of F 2008 data, det are not available for F 2008. Antropogenic values were verified on 108 0.2, which indicates the range was 0 for F108. update corresponding fugitives data to ensure emissions are not double
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PSO	Site #	FY	Data Entry Type	Refrigerant Type	Composition	Detail Approach		OR	Refrigerant Information						Notes					
						Quantity Purchased	Quantity Returned to Supplier		Quantity in storage at beginning of inventory year (lbs)	Quantity in storage at end of inventory year (lbs)	Simplified Material Balance Approach		F-Gas Type 1	F-Gas Type 2		F-Gas Type 3	F-Gas Type 4		Additional Information	SFO Notes
											Sum of all refrigerant acquisitions (lbs)	Sum of all refrigerant distributions (lbs)		Material	Amount (lbs)		Material	Amount (lbs)		
NE	603	NE-S	2011 Fiscal Year	8-502	R-22/R115	100,000							100,000	-	-	-	-	-	Includes the calculated 100 lbs from BEA maintenance records.	
NE	603	NE-S	2011 Fiscal Year	8-508B	R-22/R116	4,500							4,500	HFC-23	2,070	HFC-116	2,430	-	21,126 4.5 from BEA. Verified 4.5 from BEA.	
NE	603	NE-S	2010 Fiscal Year	8-407C	R-32/R125/R134a	17,400							17,400	HFC-32	4,002	HFC-125	4,350	HFC-134a	9,048	
NE	603	NE-S	2010 Fiscal Year	8-12	R-12	151,000	860,400						(709,400)	-	-	-	-	-	New CW input, includes amount recovered.	
NE	603	NE-S	2010 Fiscal Year	8-22	R-22	549,800	105,700						508,800	-	-	-	-	-	New CW input, includes amounts recovered and released.	
NE	603	NE-S	2010 Fiscal Year	8-32	R-32	10,000							10,000	HFC-32	10,000	-	-	-	3,948	
NE	603	NE-S	2010 Fiscal Year	8-125	R-125	32,200							32,200	HFC-125	32,200	-	-	-	38,306	
NE	603	NE-S	2010 Fiscal Year			-							#N/A	#N/A	#N/A	#N/A	#N/A	-	Moved to tab 6.2	
NE	603	NE-S	2010 Fiscal Year	8-134a	R-134a	121,800	3,500						118,300	HFC-134a	118,300	-	-	-	69,758	
NE	603	NE-S	2010 Fiscal Year	8-143a	R-143a	23,800							23,800	HFC-143a	23,800	-	-	-	41,195	
NE	603	NE-S	2010 Fiscal Year	8-410A	R-22/R125/R124	-							65,000	HFC-152a	8,450	-	-	-	0,537	
NE	603	NE-S	2010 Fiscal Year	8-410A	R-32/R125	125,500							125,500	HFC-32	62,750	HFC-125	62,750	-	New CW input, includes amount released.	
NE	603	NE-S	2010 Fiscal Year	8-404A	R-32/R125/R134a	4,100							4,100	HFC-125	1,804	HFC-134a	2,296	-	58,187	
NE	603	NE-S	2012 Fiscal Year	8-402C	R-32/R125/R134a	1,000							1,000	HFC-32	0,250	HFC-125	0,250	HFC-134a	0,500	
NE	603	NE-S	2012 Fiscal Year	8-508B	R-22/R116	0,675							0,675	HFC-23	0,288	HFC-116	0,388	-	6,692	
NE	603	NE-S	2012 Fiscal Year	8-12	R-12	3,750							(3,750)	-	-	-	-	-	2,934	
																			CW input, includes amount "recovered"	
NE	603	NE-S	2010 Fiscal Year	8-22	R-22	556,000	94,000						672,400	-	-	-	-	-	CW input, includes amounts purchased, "recovered", and AMWTP amounts purchased and released from Chiller D	
NE	603	NE-S	2010 Fiscal Year	8-134a	R-134a	250,600	0,500						250,100	HFC-134a	250,100	-	-	-	147,476	
																			AMWTP data inputs	

Fugitive Emissions: Fugitive Fluorinated Gases and Other Fugitive Emissions (Not to Include Process Emissions)

Requirement(s): DOE O 486.1, E.O. 13514

Instructions: Provide FY 2012 fugitive data using the default or simplified material balance approach, a short description of the methodology used for gathering information both in the CEDR and SSP narrative, and address SPO requests. Do not report process emissions in this tab. If historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column.

SOURCE: SicLab All data reviewed, updated, and correct for FY2013 CEDR by Kim Frerichs 11/19/2012.

Methodology									
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Fugitive Gas Information																	Notes	
PSO	Site #	Site	FY	Data Entry Type	Material Type	Composition	Default Approach			OR	Simplified Material Balance Approach				Quantity Emitted (lbs)	Anthropogenic MCO ₂ e	Additional Information	SPO Notes
							Quantity Purchased/ Issued (lbs)	Quantity Returned to Supply (lbs)	Quantity in storage at beginning of inventory year (lbs)		Quantity in storage at end of inventory year (lbs)	Sum of all F-Gas acquisitions (lbs)	Sum of all F-Gas disbursements (lbs)	Total capacity of F-Gas in equipment at beginning of inventory year (lbs)				
NE	603	INLS	2008		HFC125	C2HF5	100,380							100,380	127,488	Raw data not available, anthropogenic numbers verified		
NE	603	INLS	2008		HFC134a	CHFClF3	253,420							253,420	149,434	Raw data not available, anthropogenic numbers verified		
NE	603	INLS	2008		HFC143a	C2HF3	0.720							0.720	1,241	Raw data not available, anthropogenic numbers verified		
NE	603	INLS	2008		HFC152a	CHClHF2	24,610							24,610	1,563	Raw data not available, anthropogenic numbers verified		
NE	603	INLS	2008		HFC23	CHF3	0.400							0.400	2,123	Raw data not available, anthropogenic numbers verified		
NE	603	INLS	2008		HFC32	CH2F2	78,000							78,000	22,997	Raw data not available, anthropogenic numbers verified		
NE	603	INLS	2008		HFC365mfc	CHClF2CH2ClF3	22,890							22,890	8,222	Raw data not available, anthropogenic numbers verified		
NE	603	INLS	2008		HFC43-10mee	CHClFCHClF2C2F	1,700							1,700	1,002	Raw data not available, anthropogenic numbers verified		
NE	603	INLS	2008		PFC116	C2F6	0.500							0.500	2,087	Raw data not available, anthropogenic numbers verified		
NE	603	INLS	2008		Sulfur hexafluoride	SF6	1,500							1,500	16,261	Raw data not available, anthropogenic numbers verified		
NE	603	INLS	2010 Fiscal Year		Methane	CH4	22,972,900							23,344,890	222,370	Updated BEA & CWI inputs. AMWTP reported no emissions. Includes CWI reported released (371,599)		
NE	603	INLS	2010 Fiscal Year		Carbon dioxide	CO2	1,593,100	0.100						1,635,660	0,742	Updated BEA & CWI inputs. Includes CWI reported released (42,56) and recovered (0.1)		
NE	603	INLS	2010 Fiscal Year		HFC125	C2HF5	68,600							68,600	87,126	Updated BEA & CWI inputs. AMWTP reported no emissions.		
NE	603	INLS	2010 Fiscal Year		HFC134a	CHFClF3	1,240,300							1,277,330	753,203	Updated BEA & CWI inputs. AMWTP reported no emissions. Includes CWI reported released (37,03)		
NE	603	INLS	2010 Fiscal Year		HFC143a	C2HF3	40,000							40,000	68,946	Updated BEA & CWI inputs. AMWTP reported no emissions.		

Fugitive Gas Information										Notes					
PSO	Site #	Site	FY	Data Entry Type	Material Type	Composition	Detail Approach		Simplified Material Balance Approach			Quantity Emitted (lbs)	Anthropogenic MCO ₂ e	Additional Information	SPO Notes
							Quantity Purchased/ Issued (lbs)	Quantity Returned to Supply (lbs)	Quantity in storage at beginning of inventory year (lbs)	Quantity in storage at end of inventory year (lbs)	Sum of all F-Gas acquisitions (lbs)				
NE	603	INL-5	2010	Fiscal Year	HFC-152a	CH3CH2	9,800	-				13,620	0.865	Updated BEA & CWI inputs. AMWTP reported no emissions. Includes CWI reported released (3.82).	
NE	603	INL-5	2010	Fiscal Year	HFC-227fa	C3H7	-	-				-	-	Updated BEA & CWI inputs. AMWTP reported no emissions.	
NE	603	INL-5	2010	Fiscal Year	HFC-32	CH2F2	18,300	-				18,300	5.395	Updated BEA & CWI inputs. AMWTP reported no emissions.	
NE	603	INL-5	2010	Fiscal Year	HFC-365mfc	CH3CF2CH2CF3	0.800	-				0.800	0.288	Updated BEA & CWI inputs. AMWTP reported no emissions.	
NE	603	INL-5	2010	Fiscal Year	HFC-43-10mee	CF3CFHCFHCF2C	-	-				0.600	0.354	Updated BEA & CWI inputs. AMWTP reported no emissions. Includes CWI reported released (0.6)	
NE	603	INL-5	2010	Fiscal Year	PFC-9-1-18	C10F18	-	-				-	-	Updated BEA & CWI inputs. AMWTP reported no emissions.	
NE	603	INL-5	2010	Fiscal Year	Sulfur hexafluoride	SF6	57,200	-				90,200	977,845	Updated BEA & CWI inputs. AMWTP reported no emissions. Includes CWI reported released (33)	
	603	INL-5	2010	Fiscal Year	HFC-245fa	CH2CH2CF3	120,000	-				120,000	56,064	New CWI input	
	603	INL-5	2010	Fiscal Year	CFC-11	CCBF	0.300	-				0.730	1.258	Updated CWI inputs. Includes CWI amount reported released (0.43).	
	603	INL-5	2010	Fiscal Year	CFC-32	CCCF2	89,000	-				89,000	325,994	New CWI input	
	603	INL-5	2010	Fiscal Year	CFC-113	CCCF(CCF2	1,700	-				4,720	10,277	Updated CWI inputs. Includes CWI amount reported released (3.02).	
	603	INL-5	2010	Fiscal Year	HFC-22	CHClF2	16,250	-				29,630	20,160	Updated CWI inputs. Includes CWI amount reported released (13.38).	
	603	INL-5	2010	Fiscal Year	HFC-141b (C2H3FC2) Di (C2H3FC2		4,700	-				8,520	2,933	Updated CWI inputs. Includes CWI amount reported released (4.22).	
	603	INL-5	2010	Fiscal Year	Carbon Tetrachloride	CCl4	-	-				3,340	2,121	Updated CWI inputs. Includes CWI amount reported released (3.34).	
	603	INL-5	2010	Fiscal Year	Methyl Chloroform	CH3CCl3	5,380	-				43,560	2,911	Updated CWI inputs. Includes CWI amount reported released (2.91+35.63).	
	603	INL-5	2010	Fiscal Year	HFE-448b (HFE-7100) CH (4F9OCH3 & (CF		-	-				0.680	0.092	Updated CWI inputs. Includes CWI amount reported released (0.68).	
	603	INL-5	2010	Fiscal Year	HFE-448b (HFE-7100) CH (4F9OCH3 & (CF		-	-				0.680	0.092	Updated CWI inputs. Includes CWI amount reported released (0.68).	
NE	602	INL-1	2011		#N/A						-	-	-	Not available. Emissions reported for entire site under 603. INL-5. SPO Request: Please provide 2011 data if available	
NE	603	INL-5	2011	Fiscal Year	Carbon dioxide	CO2	1,247,700	-				1,749,170	0.793	Updated CWI inputs. Includes CWI amount reported released (501.47).	
NE	603	INL-5	2011	Fiscal Year	Carbon Tetrachloride	CCl4	0.160	-				0.160	0.102	Verified inputs	
NE	603	INL-5	2011	Fiscal Year	CFC-11	CCBF	0.300	-				0.300	0.517	Verified inputs	
NE	603	INL-5	2011	Fiscal Year	CFC-113	CC2FCCF2	14,200	-				14,200	30,917	Verified inputs	

Fugitive Gas Information											Notes					
PSO	Site #	Site	FY	Data Entry Type	Material Type	Composition	Default Approach		OR	Simplified Material Balance Approach			Quantity Emitted (lbs)	Anthropogenic MCO ₂ e	Additional Information	SPO Notes
							Quantity Purchased/ Issued (lbs)	Quantity Returned to Supply (lbs)		Quantity in storage at beginning of inventory year (lbs)	Quantity in storage at end of inventory year (lbs)	Sum of all F- Gas acquisitions (lbs)				
NE	603 INL-5		2011 Fiscal Year	CFC-12	CFC-12	CCl2F2	59,000	532,750				(463,750)	(1,709,862)		Includes calculated 522,75 lbs. recovered from CWI maintenance records. Verified inputs.	
NE	603 INL-5		2008		#N/A	#N/A						-	-		Raw data not available, anthropogenic numbers verified in above rows.	SPO Request: Please provide 2008 data if available
NE	603 INL-5		2010		#N/A	#N/A						-	-		See changes under 2010 above.	SPO Request: Please provide 2010 data if available
NE	603 INL-5		2011 Fiscal Year	HFC-141b (CH3FCF2) D/CH3FCF2			19,200	-				37,560	12,352		Updated CWI inputs. Includes CWI amount reported released [18.36].	
NE	603 INL-5		2011 Fiscal Year	HFC-22	CHClF2		147,560	-				147,560	100,398		Includes calculated 43.5 lbs released and 27 lbs. recovered from CWI maintenance records.	
NE	603 INL-5		2011 Fiscal Year	HFC-22/5ca	CH3F5C2		0,840	-				0,840	0,046		Verified inputs	
NE	603 INL-5		2011 Fiscal Year	HFC-22/5cb	CH3F5C2		0,840	-				0,840	0,227		Verified inputs	
NE	603 INL-5		2011 Fiscal Year	HFC-125	CHF3		281,400	-				281,400	357,394		Verified inputs	
NE	603 INL-5		2011 Fiscal Year	HFC-134	CH2F4		-	3,000				(3,000)	(1,361)		Includes calculated 3.0 lbs recovered from CWI maintenance records. Verified inputs	
NE	603 INL-5		2011 Fiscal Year	HFC-134a	CH2FCF3		593,319	-				593,319	349,862		Includes calculated 0.83122 lbs recovered from BFA maintenance records and recovered 1.25 lbs from CWI maintenance records. Verified inputs	
NE	603 INL-5		2011 Fiscal Year	HFC-143a	CH3F3		11,400	-				11,400	15,650		Verified inputs	
NE	603 INL-5		2011 Fiscal Year	HFC-152a	CH3CH2F		6,600	-				6,600	0,419		Verified inputs	
NE	603 INL-5		2011 Fiscal Year	HFC-245fa	CH2CF2CH2CF3		3,100	-				66,200	30,929		Updated CWI inputs. Includes amount reported released [63.1]	
NE	603 INL-5		2011 Fiscal Year	HFC-32	CHF2		268,500	-				268,500	79,163		Verified inputs	
NE	603 INL-5		2011 Fiscal Year	HFC-365-mfc	CH3CF2CH2CF3		3,800	-				5,900	2,125		Updated CWI inputs. Includes amount reported released [2.1]	
NE	603 INL-5		2011 Fiscal Year	HFE-449a (HFE-7100) CH3CF3OCH3 & (CF			1,860	-				3,920	0,528		Updated CWI inputs. Includes amount reported released [2.06]	
NE	603 INL-5		2011 Fiscal Year	HFE-449a (HFE-7100) CH3CF3OCH3 & (CF			1,860	-				3,920	0,528		Updated CWI inputs. Includes amount reported released [2.06]	
NE	603 INL-5		2011 Fiscal Year	Methane	CH4		33,196,100	-				33,273,850	321,520		Updated CWI inputs. Includes amount reported released [567.73]	
NE	603 INL-5		2011 Fiscal Year	Methyl Chloroform	CHCl3		82,000	-				82,000	5,435		Verified inputs	
NE	603 INL-5		2011 Fiscal Year	Nitrous oxide	N2O		63,000	-				63,000	8,859		Verified inputs	
NE	603 INL-5		2011 Fiscal Year	Sulfur hexafluoride	SF6		73,500	-				73,500	796,802		Includes calculated 26 lbs. recovered from BFA spill records. Verified inputs	
NE	603 INL-5		2012 Fiscal Year	Carbon dioxide	CO2		1,010,430					1,025,160	0,465		Includes CWI amounts for sites 602 & 603 and amounts not yet released to BFA-M-681	
NE	603 INL-5		2012 Fiscal Year	PFC-318	C4F8		0,500					0,500	1,973		BFA data inputs	
NE	603 INL-5		2012 Fiscal Year	PFC-3110	C4F10		1,100					1,100	3,493		BFA data inputs	
NE	603 INL-5		2012 Fiscal Year	CHF			0,060					0,060	0,004		BFA data inputs	
NE	603 INL-5		2012 Fiscal Year	CH3F			6,922					6,922	6,922		BFA data inputs	
NE	603 INL-5		2012 Fiscal Year	CHF			2,180					2,180	6,922		BFA data inputs	
NE	603 INL-5		2012 Fiscal Year	Nitrous oxide	N2O		0,120					0,120	0,017		BFA data inputs	

Fugitive Gas Information													Notes			
PSO	Site #	FY	Data Entry Type	Material Type	Composition	Default Approach		OR		Simplified Material Balance Approach			Quantity Emitted (lbs)	Anthropogenic MTCO ₂ e	Additional Information	SFO Notes
						Quantity Purchased/ Issued (lbs)	Quantity Returned to Supply (lbs)	Quantity in storage at beginning of inventory year (lbs)	Quantity in storage at end of inventory year (lbs)	Sum of all F-Gas acquisitions (lbs)	Sum of all F-Gas disbursements (lbs)	Total capacity of F-Gas in equipment at beginning of inventory year (lbs)				
NE	603 INL-5	2012 Fiscal Year	HFC-43-10mee	C3CF3CFHCF2C	1,230								1,230	0.725	BEA data inputs	
NE	603 INL-5	2012 Fiscal Year	Sulfur hexafluoride	SF6	-								6,000	65,045	BEA data inputs, includes reported 6 lb release	
NE	603 INL-5	2012 Fiscal Year	HFC-125	C2HF5	150,560								150,560	191,220	BEA data inputs	
NE	603 INL-5	2012 Fiscal Year	HFC-365mfc	CH3CF2CH2CF3	3,690								4,220	1,520	BEA & CWI data inputs, includes CWI amount reported released (0.53)	
NE	603 INL-5	2012 Fiscal Year	HFC-143a	C2HF3	12,480								12,480	21,511	BEA data inputs	
NE	603 INL-5	2012 Fiscal Year	HFC-245fa	CHF2CH2CF3	178,970								203,370	95,108	BEA & CWI data inputs, includes CWI amount reported released (24.6)	
NE	603 INL-5	2012 Fiscal Year	Methane	CH4	33,009,990								33,010,090	314,435	BEA & CWI data inputs, includes CWI amount reported released (0.1)	
NE	603 INL-5	2012 Fiscal Year	HFC-32	CH2F2	139,200								139,200	41,041	BEA data inputs	
NE	603 INL-5	2012 Fiscal Year	HFC-132a	CH3CHF2	15,260								20,950	1,330	BEA & CWI data inputs, includes CWI amount reported released (5.69)	
NE	603 INL-5	2012 Fiscal Year	HFC-134a	CH2FCF3	408,020								674,710	397,856	BEA & CWI data inputs, includes reported releases of 129.4 lbs and 137.29 lbs, respectively	
NE	603 INL-5	2012 Fiscal Year	CFC-113	CCl2FCClF2	0,900								5,640	12,280	BEA & CWI data inputs, includes CWI amount reported released (4.74)	
NE	603 INL-5	2012 Fiscal Year	HFC-22	CHClF2	1,350								8,810	5,994	BEA & CWI data inputs, includes CWI amount reported released (7.46)	
NE	603 INL-5	2012 Fiscal Year	HFC-141b (C2H3F5C2) D	C2H3FCF2	0,670								3,800	1,250	BEA & CWI data inputs, includes CWI amount reported released (3.13)	
NE	603 INL-5	2012 Fiscal Year	HFC-225ca	CH3F5CF2	0,120								0,330	0,018	BEA & CWI data inputs, includes CWI amount reported released (0.21)	
NE	603 INL-5	2012 Fiscal Year	HFC-225cb	CH3F5CF2	0,120								0,330	0,089	BEA & CWI data inputs, includes CWI amount reported released (0.21)	
NE	603 INL-5	2012 Fiscal Year	Methyl Chloroform	C2H3Cl3	0,630								30,100	1,993	BEA & CWI data inputs, includes CWI amount reported released (29.47)	
NE	603 INL-5	2012 Fiscal Year	HFE-449s (HFE-7100) CH3C4F9OCH3 & (CF		-								0,930	0,125	BEA & CWI data inputs, includes CWI amount reported released (0.93)	
NE	603 INL-5	2012 Fiscal Year	HFE-449s (HFE-7100) CH3C4F9OCH3 & (CF		-								0,930	0,125	BEA & CWI data inputs, includes CWI amount reported released (0.93)	
NE	603 INL-5	2011 Fiscal Year	HFC-134	C2H2F4	-	3,000							(3,000)	(1,361)	Updated CWI data, includes amount recovered. Moved from tab 6.1	
NE	603 INL-5	2010 Fiscal Year	HFC-134	C2H2F4	-	2,000							(2,000)	(0,907)	New CWI input, includes amount recovered. Moved from tab 6.1	

Fugitive Emissions: On-site Wastewater Treatment (Domestic Only)

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: Provide FY 2012 on-site wastewater treatment plant/system data by type, a short description of the methodology used for gathering information both in the CEDR and SSP narrative, and address SPO requests. If historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column.

Source: Site/Lab

All data reviewed, updated, and correct for FY2013 CEDR by Kim Frerichs 11/19/2012.

Key:	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Light Green	Fields that need to be reviewed and updated with changes highlighted in blue.
Orange	Optional data field to be completed, if applicable and available.
Yellow	
Red	Calculated fields. No action required.

Methodology

On-Site Wastewater Treatment Information															Notes	
PSO	Site #	Site	FY	Workdays per Year	Centralized WWTP with Anaerobic Digestion (Persons)	Centralized WWTP with Nitrification / Denitrification (Persons)	Centralized WWTP without Nitrification / Denitrification (Persons)	Effluent Discharge to Rivers and Estuaries with Nitrification / Denitrification (Persons)	Effluent Discharge to Rivers and Estuaries without Nitrification / Denitrification (Persons)	Wastewater Treatment Lagoons (Persons)	Septic Systems (Persons)	Biogenic MtCO ₂ e	Anthropogenic MtCO ₂ e	Additional Information	SPO Notes	
NE	603	INL-S	2011	192,000						3,791,000	26,000	-	224,275	Updated # of people for CWI. Changed equation in Cell N13 to reflect change to 0.325 from 0.3.		
NE	603	INL-S	2008	192,000						3,427,000	16,000	-	202,332	All on-site wastewater is only at site 603. Changed equation in Cell N14 to reflect change to 0.325 from 0.3.	SPO Request: Do not have raw data. Please provide original data, if available	
NE	603	INL-S	2010	192,000						3,979,000	37,000	-	235,926	All on-site wastewater is only at site 603. Changed equation in Cell N15 to reflect change to 0.325 from 0.3.	SPO Request: Do not have raw data. Please provide original data, if available	
NE	603	INL-S	2012	188,000						3,734,678	27,725	-	216,453	BEA, CWI, and AMWTP raw data input. Changed Cell N16 to reflect change to 0.325 from 0.3. Changed number of workdays based on commuter survey responses		

Contracted Wastewater Treatment (Domestic Only)

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: Provide FY 2012 contracted wastewater treatment plant/system data, a short description of the methodology used for gathering information both in the CEDR and SSP narrative, and address SPO requests. If actual percentages are available from wastewater treatment plant/system contractor, site may override the current calculated percentages in columns I, K, M, and O. Finally, if historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column.

Source: Site/Lab

All data reviewed, updated, and correct for FY2013 CEDR by Kim Frerichs 11/19/2012.

Key:	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Light Green	Fields that need to be reviewed and updated with changes highlighted in blue.
Orange	Optional data field to be completed, if applicable and available.
Yellow	Calculated fields. No action required.
Red	

Methodology

Contracted Wastewater Information															Notes								
PSO	Site #	Site	FY	Workdays per Year	Centralized WWTp with Anaerobic Digestion (Persons)		Centralized WWTp with Nitrification / Denitrification		Centralized WWTp without Nitrification / Denitrification		Effluent Discharge to Rivers and Estuaries with Nitrification / Denitrification		Effluent Discharge to Rivers and Estuaries without Nitrification / Denitrification		Wastewater Treatment Lagoons		Biogenic MTCO ₂ e	Total Anthropogenic MTCO ₂ e	Additional Information	SPO Notes			
NE	602	INL-I	2011	216,000	2,531.0	100.0%	2,531.0	0.0%	-	0.0%	-	100.0%	2,531.0	0.0%	-	7,521	15,977	Adjusted workdays per Town accuracy/consistency following change in reporting method vs schedule. Updated CWI data, 2008 and 2010.	SPO Request: Please check				
NE	602	INL-I	2008	216,000	2,247.0	100.0%	2,247.0	0.0%	-	0.0%	-	100.0%	2,247.0	0.0%	-	6,677	14,184	Adjusted workdays per Town accuracy/consistency following schedule. Updated CWI data.	SPO Request: Please provide actual data, if available. Do not have raw data.				
NE	602	INL-I	2010	216,000	2,628.0	100.0%	2,628.0	0.0%	-	0.0%	-	100.0%	2,628.0	0.0%	-	7,809	16,589	Adjusted workdays per Town accuracy/consistency following schedule. Updated CWI data.	SPO Request: Please provide actual data, if available. Do not have raw data.				
NE	603	INL-S	2008	230,000		36.5%	-	63.5%	-	36.5%	-	63.5%	-	0.0%	-			Cannot find source of this data. There should not be any contracted WWT at Site. Removed data.	SPO Request: Please provide actual data, if available. Do not have raw data.				
NE	603	INL-S	2010	230,000		36.5%	-	63.5%	-	36.5%	-	63.5%	-	0.0%	-			Cannot find source of this data. There should not be any contracted WWT at Site. Removed data.	SPO Request: Please provide actual data, if available. Do not have raw data.				
NE	603	INL-S	2011	230,000		36.5%	-	63.5%	-	36.5%	-	63.5%	-	0.0%	-			NA - All contracted WWT is at Site 602.	SPO Request: Please provide 2011 data if available				
NE	602	INL-I	2012	212,000	2,421.7	100.0%	2,421.7	0.0%	-	0.0%	-	100.0%	2,421.7	0.0%	-	7,063	15,003	BEA, CWI, and AMWTP raw data entered. Updated Column R to 0.325. Updated # workdays per year based on commuter survey responses.					

Business Air Travel

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: Provide FY 2012 air travel data by flight type for the primary contractor, a short description of the methodology used for gathering information both in the CEDR, and SSP narrative, and address SPO requests. Federal business air travel information will be pulled by DOE headquarters from GovTrip. If historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column.

Source: Site/Lab

All data reviewed, updated, and correct for FY2013 CEDR by Kim Frerichs 11/19/2012.

Light	Pre-populated data by SPO to be reviewed
Green	Green: Data that has been reviewed and is correct
Orange	Orange: Data that needs to be reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated field. No action required.

Methodology

Air Travel Information							Notes			
PSO	Site #	FY	Process Type	Flight Type	Fuel Type	Consumption/ Usage	Unit of Measure	Anthropogenic MTCO2e	Additional Information	SPO Notes
NE	602 INL-1	2008	Air Business Travel						Updated information below	SPO Request: Do not have raw data. Please provide original data, if available. Used goal seek to estimate miles as unknown to match original 08 MTCO2e estimate of: 18.9
NE	602 INL-1	2008	Air Business Travel	Unknown	Jet Fuel	25,295,840	Passenger miles	4,834,971	BEA AMWTP data entered. All CWI data entered below.	
NE	602 INL-1	2008	Air Business Travel	Unknown	Jet Fuel	4,642,441	Number of trips	887,342	CWI data updated as balance of difference between original 2008 miles for 602 & 603 (4,642,441)	
NE	602 INL-1	2010	Air Business Travel	Unknown					Updated information below	SPO Request: Do not have raw data. Used goal seek to estimate miles as unknown to match original 08 MTCO2e estimate of: 7,349.1. Please provide original data, if available, and provide breakdown by flight type.
NE	602 INL-1	2010	Air Business Travel	Short Haul (< 300 miles)	Jet Fuel	3,477,822	Passenger miles	1,017,975	Updated CWI and AMWTP data	
NE	602 INL-1	2010	Air Business Travel	Medium Haul (300 mile < x < 700 mile)	Jet Fuel	7,997,691	Passenger miles	1,336,006	Updated CWI and AMWTP data	
NE	602 INL-1	2010	Air Business Travel	Long Haul (> 700 miles)	Jet Fuel	22,586,398	Passenger miles	4,317,095	Updated CWI and AMWTP data	
NE	602 DOE Idaho	2010	Air Business Travel	GSA Travel MIS	Jet Fuel	932,398	lbs CO2	428,141		
NE	602 INL-1	2011	Air Business Travel	Short Haul (< 300 miles)	Jet Fuel	3,066,129	Passenger miles	897,470	INL numbers verified	
NE	602 INL-1	2011	Air Business Travel	Medium Haul (300 mile < x < 700 mile)	Jet Fuel	5,244,640	Passenger miles	876,112	INL numbers verified	
NE	602 INL-1	2011	Air Business Travel	Long Haul (> 700 miles)	Jet Fuel	21,963,466	Passenger miles	4,198,031	INL numbers verified	
NE	602 DOE Idaho	2011	Air Business Travel	GSA Travel MIS	Jet Fuel	862,754	lbs CO2	396,162		
NE	602 INL-1	2008	Air Business Travel	Unknown					Deleted - updated 2008 numbers above	SPO Request: Do not have raw data. Please provide original data, if available. Used goal seek to estimate miles as unknown to match original 08 MTCO2e estimate of: 18.9
NE	602 INL-1	2012	Air Business Travel	Short Haul (< 300 miles)	Jet Fuel	15,872,091	Passenger miles	4,645,836	BEA, CWI, and AMWTP raw data entered.	
NE	602 INL-1	2012	Air Business Travel	Medium Haul (300 mile < x < 700 mile)	Jet Fuel	4,696,957	Passenger miles	784,622	BEA, CWI, and AMWTP raw data entered.	
NE	602 INL-1	2012	Air Business Travel	Long Haul (> 700 miles)	Jet Fuel	2,456,344	Passenger miles	469,498	BEA, CWI, and AMWTP raw data entered.	

Business Ground Travel (Domestic Only)

Requirement(s): DOE O-436.1, E.O. 13514

Instructions: Provide FY 2012 ground travel data for the primary contractor, a short description of the methodology used for gathering information both in the CEDR and SSP narrative, and address SPO requests. Federal business ground travel information will be pulled by DOE headquarters from GovTrip. If historical data is updated please be sure to address this in your SSP narrative, highlight the call, and note the change in the "Additional Information" column.

Source: Site/Lab All data reviewed, updated, and correct for FY2013 CEDR by Kim Frerichs 11/19/2012.

Key:	Pre-populated data by SPO to be reviewed
Light Green	Original data reviewed and updated with changes highlighted in blue.
Orange	Original data reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated field. No action required.

Methodology

Ground Travel Information										Notes			
PSO	Site #	Site	FY	Process Type	Vehicle Type	Fuel Type	Consumption/ Usage	Unit of Measure	Site Average Miles per Trip	Default Average Miles per Trip	Anthropogenic MTCO ₂ e	Additional Information	SPO Notes
NE	602	INL-I	2008	Rental Trip Mileage	Passenger Car	Gasoline	8,971	Number of Agency Busir	419,000	210,000	1,408,000	Cannot provide raw data for all contractors. Raw data is available for # of passenger car trips at 419 miles per trip to match original 08 MTCO ₂ e estimate of: 1,408.	SPO Request: Do not have raw data. Please provide original data, if available. Used goal seek to estimate # of passenger car trips at 419 miles per trip to match original 08 MTCO ₂ e estimate of: 1,408.
NE	602	DOE Idah	2010	POV Mileage	Passenger Car	Gasoline	117,130	Total Reimbursed Mileage		-	43,892	DOE data	SPO Note: GSA Travel MIS data, broken down by site office.
NE	602	INL-I	2010	POV Mileage	Passenger Car	Gasoline	661,846	Total Reimbursed Mileage			247,908	BEA raw data updated. Verified Anthro #s	
NE	602	INL-I	2010	POV Mileage	SUV or Truck	Gasoline	325,984	Total Reimbursed Mileage			174,182	BEA raw data updated. Verified Anthro #s	
NE	602	INL-I	2010	Rental Trip Mileage	Passenger Car	Gasoline	173	Number of Agency Business Trips	210,000		13,608	Updated CWT data - use default miles per trip	
NE	602	INL-I	2010	Rental Mileage by Class	Economy	Gasoline	5,041	Total Mileage by Vehicle Type			1,613	BEA raw data updated. Verified Anthro #s	
NE	602	INL-I	2010	Rental Mileage by Class	Compact	Gasoline	37,215	Total Mileage by Vehicle Type			10,862	BEA raw data updated. Verified Anthro #s	
NE	602	INL-I	2010	Rental Mileage by Class	Midsize	Gasoline	334,582	Total Mileage by Vehicle Type			106,688	BEA raw data updated. Includes Classes C + D	
NE	602	INL-I	2010	Rental Mileage by Class	Full Size	Gasoline	226,232	Total Mileage by Vehicle Type			89,785	BEA raw data updated. Includes Classes G, H, & K	
NE	602	INL-I	2010	Rental Mileage by Class	Luxury	Gasoline	29,478	Total Mileage by Vehicle Type			13,262	BEA raw data updated.	
NE	602	INL-I	2010	Rental Mileage by Class	Minivan/Wagon	Gasoline	16,462	Total Mileage by Vehicle Type			7,241	BEA raw data updated.	
NE	602	INL-I	2010	Rental Mileage by Class	Small SUV	Gasoline	106,170	Total Mileage by Vehicle Type			47,477	BEA raw data updated. Includes Classes F + S	
NE	602	INL-I	2010	Rental Mileage by Class	Medium SUV	Gasoline	79,812	Total Mileage by Vehicle Type			42,554	BEA raw data updated. Includes Classes W + X	
NE	602	INL-I	2010	Rental Mileage by Class	Large SUV	Gasoline	34,162	Total Mileage by Vehicle Type			19,205	BEA raw data updated. Includes Classes L + Z	

Ground Travel Information											Notes		
PSO	Site #	Site	FY	Process Type	Vehicle Type	Fuel Type	Consumption/Usage	Unit of Measure	Site Average Miles per Trip	Default Average Miles per Trip	Anthropogenic MTCO ₂ e	Additional Information	SPO Notes
NE	602	INL-I	2010	Rental Mileage by Class	Passenger Van	Gasoline	6,346	Total Mileage by Vehicle Type			3,745	BEA raw data updated.	
NE	602	INL-I	2010	Rental Mileage by Class	Unknown	Gasoline	49,858	Total Mileage by Vehicle Type			27,431	BEA raw data updated.	
NE	602	DOE (a)hc	2011	POV Mileage	Passenger Car	Gasoline	104,790	Total Reimbursed Mileage	-	-	39,251	DOE data	SPO Note: GSA Travel MIS data, broken down by site office.
NE	602	INL-I	2011	Rental Trip Mileage	Passenger Car	Gasoline	409	Number of Agency Business Trips	210,000		32,172	CWI data verified. Used new default miles per trip.	
NE	602	INL-I	2011	Rental Mileage by Class	Economy	Gasoline	2,108	Total Mileage by Vehicle Type	-		0,674	BEA data verified.	
NE	602	INL-I	2011	Rental Mileage by Class	Compact	Gasoline	43,407	Total Mileage by Vehicle Type	-		12,669	BEA data verified.	
NE	602	INL-I	2011	Rental Mileage by Class	Midsize	Gasoline	236,741	Total Mileage by Vehicle Type	-		75,490	BEA data verified.	
NE	602	INL-I	2011	Rental Mileage by Class	Full Size	Gasoline	204,424	Total Mileage by Vehicle Type	-		81,130	BEA data verified.	
NE	602	INL-I	2011	Rental Mileage by Class	Luxury	Gasoline	39,563	Total Mileage by Vehicle Type	-		17,798	BEA data verified.	
NE	602	INL-I	2011	Rental Mileage by Class	Minivan/Wagon	Gasoline	17,652	Total Mileage by Vehicle Type	-		7,765	BEA data verified.	
NE	602	INL-I	2011	Rental Mileage by Class	Small SUV	Gasoline	119,589	Total Mileage by Vehicle Type	-		53,478	BEA data verified.	
NE	602	INL-I	2011	Rental Mileage by Class	Medium SUV	Gasoline	65,367	Total Mileage by Vehicle Type	-		34,852	BEA data verified.	
NE	602	INL-I	2011	Rental Mileage by Class	Large SUV	Gasoline	44,974	Total Mileage by Vehicle Type	-		25,283	BEA data verified.	
NE	602	INL-I	2011	Rental Mileage by Class	Passenger Van	Gasoline	2,402	Total Mileage by Vehicle Type	-		1,418	BEA data verified.	
NE	602	INL-I	2011	Rental Mileage by Class	Unknown	Gasoline	5,352	Total Mileage by Vehicle Type	-		2,945	BEA data verified.	
NE	602	INL-I	2011	POV Mileage	Passenger Car	Gasoline	820,539	Total Reimbursed Mileage	-		307,350	BEA data verified.	
NE	602	INL-I	2011	POV Mileage	SUV or Truck	Gasoline	445,385	Total Reimbursed Mileage	-		237,981	BEA data verified.	
NE	602	INL-I	2008	Rental Trip Mileage	Passenger Car	Gasoline	389	Number of Agency Business Trips	210,000		30,573	Changed to site 602, raw data. Please provide original data, if available. Raw data not available. Used goal seek to estimate # of passenger car trips at 419 miles per trip to match original 08 MTCO2e estimate of: 61.	
NE	602	INL-I	2012	Rental Mileage by Class	Economy	Gasoline	1,719	Total Mileage by Vehicle Type	-		0,550	BEA - Class A	
NE	602	INL-I	2012	Rental Mileage by Class	Compact	Gasoline	20,382	Total Mileage by Vehicle Type	-		5,949	BEA - Class B	
NE	602	INL-I	2012	Rental Mileage by Class	Midsize	Gasoline	253,838	Total Mileage by Vehicle Type	-		80,941	BEA - Includes Classes C and D	
NE	602	INL-I	2012	Rental Mileage by Class	Full Size	Gasoline	173,849	Total Mileage by Vehicle Type	-		68,995	BEA - Class E and AMWTP data inputs	
NE	602	INL-I	2012	Rental Mileage by Class	Luxury	Gasoline	37,692	Total Mileage by Vehicle Type	-		16,956	BEA - Includes Classes (G, H, and K) and AMWTP data inputs	
NE	602	INL-I	2012	Rental Mileage by Class	Minivan/Wagon	Gasoline	20,767	Total Mileage by Vehicle Type	-		9,135	BEA - Class V and AMWTP data inputs	
NE	602	INL-I	2012	Rental Mileage by Class	Small SUV	Gasoline	106,077	Total Mileage by Vehicle Type	-		47,435	BEA - Classes F and S	
NE	602	INL-I	2012	Rental Mileage by Class	Medium SUV	Gasoline	73,139	Total Mileage by Vehicle Type	-		38,996	BEA - Classes W and X and AMWTP data inputs	
NE	602	INL-I	2012	Rental Mileage by Class	Large SUV	Gasoline	21,720	Total Mileage by Vehicle Type	-		12,210	BEA - Classes L and Z	
NE	602	INL-I	2012	Rental Mileage by Class	Passenger Van	Gasoline	4,153	Total Mileage by Vehicle Type	-		2,451	BEA - Class P and AMWTP data inputs	
NE	602	INL-I	2012	Rental Mileage by Class	Unknown	Gasoline	2,745	Total Mileage by Vehicle Type	-		1,510	BEA - Class Other	
NE	602	INL-I	2012	POV Mileage	Passenger Car	Gasoline	403,806	Total Reimbursed Mileage	-		151,254	BEA and AMWTP data inputs	
NE	602	INL-I	2012	POV Mileage	SUV or Truck	Gasoline	199,569	Total Reimbursed Mileage	-		106,635	BEA and AMWTP data inputs	
NE	602	INL-I	2012	Rental Trip Mileage	Passenger Car	Gasoline	174	Number of Agency Business Trips	210,000		13,687	CWI data for FY12	

Employee Commuting (Domestic Only)

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: Provide FY 2012 commuting data for both Federal and primary contractor employees. a short description of the methodology used for gathering information both in the CEDR and SSP narrative, and address SPO requests. If historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column.

Source: Site/Lab

All data reviewed, updated, and correct for FY2013 CEDR by Kim Frerichs 11/19/2012.

Key:	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Light Green	Fields that need to be reviewed and updated with changes highlighted in blue.
Orange	Optional data field to be completed, if applicable and available.
Yellow	Calculated fields. No action required.
Red	

Methodology

Ground Travel Information										Notes			
PSO	Site #	Site	FY	Process Type	Vehicle Type	Fuel Type	Consumption/ Usage	Unit of Measure	Site Number of Commute Days per Year	Default Number of Commute Days per Year	Anthropogenic MtCO ₂ e	Additional Information	SPO Notes
NE	602	INL-I	2008	Personal Owned Vehicles	POV Passenger Car	Gasoline	238,244		230,000	230,000		Not sure where this came from, updated contractor Data Call	SPO Request: If available, please provide breakdown by site and process/vehicle type.
NE	602	INL-I	2008	Personal Owned Vehicles	POV Passenger Car	Gasoline	25,676		216,000		2,077,377	BEA and AMWTP data updated	
NE	603	INL-S	2008	Personal Owned Vehicles	POV Passenger Car	Gasoline	136,329		192,000		9,804,431	BEA, CWI and AMWTP data updated	
NE	602	INL-I	2010	Personal Owned Vehicles	POV Passenger Car	Gasoline	215,825		216,000	230,000	17,461,863	Cannot provide data by site and process type for all contractors. Updated # of commute days per year to be same as previous years. Data is available for CWI and BEA, upon request	SPO Request: If available, please provide breakdown by site and process/vehicle type.
NE	602	INL-I	2011	Personal Owned Vehicles	POV Passenger Car	Gasoline	23,597		216,000	230,000	1,909,202	BEA data updated. ICP and AMWTP data verified.	
NE	602	INL-I	2011	Personal Owned Vehicles	POV SUV or Truck	Gasoline	15,149		216,000	230,000	1,748,384	BEA data updated. ICP and AMWTP data verified.	
NE	602	INL-I	2011	Personal Owned Vehicles	POV SUV or Truck	Diesel	1,918		216,000	230,000	232,573	BEA data updated. ICP and AMWTP data verified.	
NE	602	INL-I	2011	Personal Owned Vehicles	Motorcycle	Gasoline	332		216,000	230,000	12,248	BEA data updated. ICP and AMWTP data verified.	
NE	602	INL-I	2011	Personal Owned Vehicles	POV Passenger Car	Hybrid	701		216,000	230,000	28,787	BEA data updated. Difference in Anthro from 55.3 to 32.9 - change to hybrid and error on source worksheet	SPO Note: Site entered "alternative" which is not an option, changed to "hybrid".
NE	602	INL-I	2011	Personal Owned Vehicles	POV Passenger Car	Diesel	827		216,000	230,000	80,756	BEA data updated. (EF different so error on source worksheet)	
NE	602	INL-I	2011	Human Powered	Walking and/or Bicycling		278		216,000	230,000	-	BEA data updated. ICP and AMWTP data verified.	
NE	602	DOE Idal	2011	Personal Owned Vehicles	POV Passenger Car	Gasoline	3,298		216,000	230,000	266,802	DOE data verified	
NE	602	DOE Idal	2011	Personal Owned Vehicles	POV SUV or Truck	Gasoline	1,722		216,000	230,000	198,729	DOE data verified	
NE	602	DOE Idal	2011	Personal Owned Vehicles	POV SUV or Truck	Diesel	370		216,000	230,000	44,869	DOE data verified	
NE	602	DOE Idal	2011	Personal Owned Vehicles	Motorcycle	Gasoline	41		216,000	230,000	1,527	DOE data verified	
NE	602	DOE Idal	2011	Personal Owned Vehicles	POV Passenger Car	Hybrid	321		216,000	230,000	13,188	DOE data verified. Difference in Anthro from 55.3 to 13.445 - change to hybrid. Also error on source worksheet	SPO Note: Site entered "alternative" which is not an option, changed to "hybrid".

Ground Travel Information										Notes			
PSO	Site #	Site	FY	Process Type	Vehicle Type	Fuel Type	Consumption/ Usage	Unit of Measure	Site Number of Commute Days per Year	Default Number of Commute Days per Year	Anthropogenic MTCO ₂ e	Additional Information	SFO Notes
NE	602	DOE (dal)	2011	Personal Owned Vehicles	POV Passenger Car	Diesel	96		216,000	230,000	9,410	DOE data verified (EF different so Anthro went from 109.5 to 9.41. Also error on source worksheet)	
NE	602	DOE (dal)	2011	Human Powered	Walking and/or Bicycling		30		216,000	230,000	-	DOE data verified	
NE	603	INL-S	2011	Personal Owned Vehicles	POV Passenger Car	Gasoline	61,207		192,000	230,000	4,401,896	BEA data updated. CWI and AMWTP data verified	
NE	603	INL-S	2011	Personal Owned Vehicles	POV SUV or Truck	Gasoline	28,065		192,000	230,000	2,879,211	BEA data updated. CWI and AMWTP data verified	
NE	603	INL-S	2011	Personal Owned Vehicles	POV SUV or Truck	Diesel	9,869		192,000	230,000	1,063,477	BEA data updated. CWI and AMWTP data verified	
NE	603	INL-S	2011	Personal Owned Vehicles	Motorcycle	Gasoline	642		192,000	230,000	21,024	BEA data updated	
NE	603	INL-S	2011	Personal Owned Vehicles	POV Passenger Car	Hybrid	1,588		192,000	230,000	57,930	BEA data updated. Difference in Anthro (from 55.3 to 62.725 - change to hybrid. Also error on source worksheet)	SPO Note: Site entered "alternative" which is not an option, changed to "hybrid".
NE	603	INL-S	2011	Personal Owned Vehicles	POV Passenger Car	Diesel	943		192,000	230,000	81,863	BEA data updated. (EF different so Anthro went from 109.6 to 88.211. Also error on source worksheet)	
NE	603	INL-S	2011	Car/Van Pools	Car Pool	Gasoline	8,131		192,000	230,000	292,375	INL data verified	
NE	603	INL-S	2011	Car/Van Pools	Van Pool	Gasoline	18,272		192,000	230,000	468,631	INL data verified	
NE	603	INL-S	2011	Human Powered	Walking and/or Bicycling		158		192,000	230,000	-	BEA data updated. CWI and AMWTP data verified	
NE	602	INL-I	2012	Personal Owned Vehicles	POV Passenger Car	Gasoline	20,959		212,000	230,000	1,664,346	BEA, CWI and AMWTP data entered. Updated number of commute days per year based on commuter survey responses.	
NE	602	INL-I	2012	Personal Owned Vehicles	POV Passenger Car	Diesel	278		212,000	230,000	26,634	BEA and CWI data entered	
NE	602	INL-I	2012	Personal Owned Vehicles	POV SUV or Truck	Gasoline	12,796		212,000	230,000	1,449,443	BEA, CWI and AMWTP data entered	
NE	602	INL-I	2012	Personal Owned Vehicles	POV SUV or Truck	Diesel	1,227		212,000	230,000	146,026	BEA, CWI and AMWTP data entered	
NE	602	INL-I	2012	Personal Owned Vehicles	Motorcycle	Gasoline	497		212,000	230,000	17,967	BEA, CWI and AMWTP data entered	
NE	602	INL-I	2012	Personal Owned Vehicles	POV Passenger Car	Hybrid	1,317		212,000	230,000	53,057	BEA and CWI data entered	
NE	602	INL-I	2012	Car/Van Pools	Car Pool	Gasoline	149		212,000	230,000	5,908	CWI data entered	
NE	602	INL-I	2012	Car/Van Pools	Van Pool	Gasoline	67		212,000	230,000	1,910	CWI data entered	
NE	602	INL-I	2012	Human Powered	Walking and/or Bicycling		309		212,000	230,000	-	BEA and CWI data entered	
NE	603	INL-S	2012	Personal Owned Vehicles	POV Passenger Car	Gasoline	72,666		188,000	230,000	5,117,121	BEA, CWI and AMWTP data entered. Updated number of commute days per year based on commuter survey responses.	
NE	603	INL-S	2012	Personal Owned Vehicles	POV Passenger Car	Diesel	1,653		188,000	230,000	140,515	BEA and CWI data entered	
NE	603	INL-S	2012	Personal Owned Vehicles	POV SUV or Truck	Gasoline	30,667		188,000	230,000	3,080,597	BEA, CWI and AMWTP data entered	
NE	603	INL-S	2012	Personal Owned Vehicles	POV SUV or Truck	Diesel	4,287		188,000	230,000	452,341	BEA, CWI and AMWTP data entered	
NE	603	INL-S	2012	Personal Owned Vehicles	Motorcycle	Gasoline	602		188,000	230,000	19,316	BEA, CWI and AMWTP data entered	
NE	603	INL-S	2012	Personal Owned Vehicles	POV Passenger Car	Hybrid	1,573		188,000	230,000	56,174	BEA and CWI data entered	
NE	603	INL-S	2012	Car/Van Pools	Car Pool	Gasoline	27,324		188,000	230,000	962,075	CWI data entered	
NE	603	INL-S	2012	Car/Van Pools	Car Pool	Gasoline	1,372		188,000	230,000	48,313	CWI data entered	
NE	603	INL-S	2012	Car/Van Pools	Van Pool	Gasoline	9,761		188,000	230,000	245,143	CWI and AMWTP data entered	
NE	603	INL-S	2012	Car/Van Pools	Van Pool	Gasoline	5,250		188,000	230,000	131,835	CWI data entered	
NE	603	INL-S	2012	Car/Van Pools	Van Pool	Gasoline	957		188,000	230,000	24,026	CWI data entered	
NE	603	INL-S	2012	Human Powered	Walking and/or Bicycling		184		188,000	230,000	-	BEA and CWI data entered	
NE	602	DOE (dal)	2012	Personal Owned Vehicles	POV Passenger Car	Gasoline	2,720		212,000	230,000	216,018	DOE data entered	
NE	602	DOE (dal)	2012	Personal Owned Vehicles	POV SUV or Truck	Gasoline	1,420		212,000	230,000	160,878	DOE data entered	

Ground Travel Information											Notes		
PSO	Site #	Site	FY	Process Type	Vehicle Type	Fuel Type	Consumption/ Usage	Unit of Measure	Site Number of Commute Days per Year	Default Number of Commute Days per Year	Anthropogenic MtCO ₂ e	Additional Information	SPO Notes
NE	602	DOE Idal	2012	Personal Owned Vehicles	Motorcycle	Gasoline	53		212,000	230,000	1,912	DOE data entered	
NE	602	DOE Idal	2012	Personal Owned Vehicles	POV Passenger Car	Diesel	86		212,000	230,000	8,207	DOE data entered	
NE	602	DOE Idal	2012	Personal Owned Vehicles	POV SUV or Truck	Diesel	254		212,000	230,000	30,262	DOE data entered	
NE	602	DOE Idal	2012	Personal Owned Vehicles	POV Passenger Car	Hybrid	294		212,000	230,000	11,859	DOE data entered	
NE	602	DOE Idal	2012	Human Powered	Walking and/or Bicycling		49		212,000	230,000	-	DOE data entered	

Fugitive Emissions: On-site Landfills and Municipal Solid Waste Facilities (Domestic Only)

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: This is an optional tab for FY 2012 GHG estimates of on-site landfill/municipal solid waste emissions and GHG goal performance. Enter information uploaded or to be uploaded into PPTRS for FY 2012 and select "Current FY" from the dropdown list in cell V4. If the information is not readily available, then select "Last FY" and the historical data provided will be used as placeholder for performance estimates. Also, please address SPO requests on historical data. If historical data is updated, please be sure to highlight the cell and note the change in the "Additional Information" column. Finally, sites may elect to provide a short description of the methodology used for gathering this information.

Source: Site/Lab All data reviewed, updated, and correct for FY2013 CEDR by Kim Frerichs 11/19/2012

Key:	Prepopulated data by SPO to be reviewed
Light Green	Fields that need to be reviewed and updated with changes highlighted in blue.
Orange	Optional data field to be completed, if applicable and available.
Yellow	Calculated field. No action required.
Red	

Current FY

Methodology

		On-Site Landfill Information																Notes					
FSO	Site #	Site	FY	Mass of Solid Waste Disposed On-site (Short Tons)	Landfill Open Date (Year)	Landfill Close Date (Year)	Carbon dioxide (biogas) (MT Megagram)	Methane (MT Megagram)	Percentage Uncontrolled Release (CO2 Biogenic)		Percentage Uncontrolled Release (CH4)		Landfill Gas Collection System Efficiency (CH4)		Venting Loss (CH4)		Methanotropic Bacteria Oxidation Factor (CH4)		Combustion Oxidation Factor (CO2 Biogenic)	Biogenic MitCO ₂ e	Anthropogenic MitCO ₂ e	Additional Information	SPO Notes
									Site	Default	Site	Default	Site	Default	Site	Default	Site	Default					
NE	603	INL-S	2011	709	1984	2025	827,900	301,700	100%	100%	50%	75%	1%	10%	99%	910,868	5,702,130	Changed site to 603, since all reportable onsite landfills are only at 603.					
NE	603	INL-S	2008	827	1984	2025	865,800	315,500	100%	100%	50%	75%	1%	10%	99%	952,563	5,962,950	Changed site to 603, since all reportable onsite landfills are only at 603. Updated BEA available				SPO Request: Do not have raw data. Please provide original data, if available	
NE	603	INL-S	2010	805	1984	2025	840,000	306,100	100%	100%	50%	75%	1%	10%	99%	924,178	5,785,290	Changed site to 603, since all reportable onsite landfills are only at 603. Updated BEA available				SPO Request: Do not have raw data. Please provide original data, if available	
NE	603	INL-S	2012	664	1984	2025	815,500	297,200	100%	100%	50%	75%	1%	10%	99%	897,230	5,617,080	INL raw data input for FY12 (DOE ID = 513.3 short tons, DOE NR = 50.25 short tons)					

Requirement(s): DOE O 436.1, E.O. 13514

Source : Site/Lab

Source: Site/Lab

Key:	
Light Green	Pre-populated data by SPO to be reviewed
Green	Updated with changes highlighted in blue. Plus that need to be reviewed and updated with changes highlighted in blue
Orange	Optional data field to be completed, if applicable and available
Yellow	Optional data field to be completed, if applicable and available
Red	Calculated field. No action required

		Contracted / Off-Site Landfill Information																Notes					
PFO	Site #	FY	Mt of Solid Waste Disposed Off-site (Short Tons)	Degradable Organic Carbon (Megagram C / Megagram Water) Off-site (Megagram)	DOC Aromatic Degradability (%)	Methane Correction Factor	Methane % of Landfill Gas (%)	Methane Molecular Weight Conversion	Carbon Dioxide Molecular Weight Conversion	Cachon dioxide (kg/m ³)	Methane (MT Megagrams)	Percentage Uncontrolled Release CO2 (kg/m ³)	Percentage Transmitted Release CH4	Landfill Gas Collection System Efficiency (CH4)	Venting Losses (CH4)	Microbiology Barriers Oxidation Factor (CH4)	Cash within Barriers (CO2 & kg/m ³)	Bleapne MICO-ge	Anthropogenic MICO-ge	Additional Information	SPO Notes		
NE	602 INL-I	2011	750,240	680,629	0.203	50.0%	1.0	50.0%	1.333	3.657	115.649	-46.054	100.0%	100.0%	50.0%	75.0%	1.0%	10.0%	99.0%	139.314	830.413	Total 100% uncontrolled release and 0% Landfill Gas collection Loss.	
																					Info from "Sanitation Department Report FY11-200": No Landfill gas collected at this site. The company landfill changed assumptions from the total 100% uncontrolled release and 0% Landfill Gas collection Loss.		
																					Adjusted CH4 collection efficiency to 100%, as reported in 2011. Beggs's and Andrio automatically updated.		
NE	602 INL-I	2010	741,240	672,418	0.203	50.0%	1.0	50.0%	1.333	3.657	125.130	-45.502	100.0%	100.0%	50.0%	75.0%	1.0%	10.0%	99.0%	137.642	858.981	Entered raw data separate 2010 data if available. Appears to be copy of 2011. Do not have raw data.	
NE	604 MFC	2010	-	-	0.203	50.0%	1.0	50.0%	1.333	3.657	-	-	100.0%	50.0%	50.0%	75.0%	1.0%	10.0%	99.0%	-	-	Why was MFC reporting no methane? Could not find source of this info. Do not have raw data.	
																					SPO Request: Please provide actual data, if available. Do not have raw data.		
NE	602 INL-I	2008	930,520	845,077	0.203	50.0%	1.0	50.0%	1.333	3.657	155.394	-55.507	100.0%	100.0%	50.0%	75.0%	1.0%	10.0%	99.0%	170.931	1,057.980	Entered 861 raw data separate 2008 data if available. Appears to be copy of 2011. Do not have raw data.	
NE	602 INL-I	2012	851,180	800,353	0.203	50.0%	1.0	50.0%	1.333	3.657	111.693	-49.618	100.0%	100.0%	50.0%	75.0%	1.0%	10.0%	99.0%	122.859	767.616	861 raw data entered	

Fleet Fuel (FAST Data)

Equipment(s) NECPA, EISA 2007, DOE, O 4361.1, E.O. 13514

Instructions: This is an optional tab for FY 2012 OHG estimates of fleet fuel and fleet fuel goal performance. Enter information uploaded or to be uploaded into FAST for FY 2012 and select "Current FY" from the drop-down list at cell N4. If the information is not readily available, then select "Last FY" and the historical FAST data provided will be used a placeholder for performance estimates.

Source: FAST All data reviewed, updated, and is correct for FY 2013 CEDR Report - Ernest Fossum 1/15/12

PSO	Site Num	Fleet Parent	Fleet Name	Report Year	Agency Group	EPACT-covered Agency	EIO-covered Fuel	Fuel Group	Fuel Name	Fuel Type	Fuel State Abbreviation	Vehicle Exemption	Fuel Consumed (GGE)	Fuel Consumption (NUT)	Fuel Natural Units	Fuel GGE Conversion Factor	Fuel Cost (\$)	Diesel From E20	Antiautogenic MTC's
NE	603	Chicago Office	Argonne West	2004	EPACT-Cove Yes	No	No	Petroleum	Gasoline	GAS	NS	E/ER	1155	1155	1	1.790 No	10,734,943.2		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2000	EPACT-Cove Yes	No	No	Alternative	CNG	CNG 3000	NS	None	3339	14,942 gallons at 3i	0.225	19,481 No	22,150,926		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2000	EPACT-Cove Yes	No	No	Petroleum	Diesel	DSL	NS	E/ER	540	438 gallons	1.147	555 No	4,444,746.19		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2000	EPACT-Cove Yes	No	No	Petroleum	Gasoline	GAS	NS	None	524	524 gallons	1.147	71 No	5,444,746.19		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2000	EPACT-Cove Yes	Yes	Yes	Petroleum	Diesel	DSL	NS	None	670243	592,189 gallons	1.147	840,273 No	62,944,997.155		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2000	EPACT-Cove Yes	Yes	Yes	Petroleum	Gasoline	GAS	NS	None	29,0064	29,064 gallons	1	388,660 No	25,703,767.433		
NE	603	Chicago Office	Argonne West	2001	EPACT-Cove Yes	No	No	Petroleum	Diesel	DSL	NS	E/ER	1317	1,148 gallons	1.147	1,709 No	12,184,417.54		
NE	603	Chicago Office	Argonne West	2001	EPACT-Cove Yes	Yes	Yes	Petroleum	Gasoline	GAS	NS	None	1565	1,565 gallons	1	2,392 No	13,868,960.26		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2001	EPACT-Cove Yes	No	No	Alternative	CNG	CNG 3000	NS	None	18072	66,932 gallons at 3i	0.27	12,958 No	119,889,448		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2001	EPACT-Cove Yes	No	No	Alternative	LPG	LPG	NS	None	34,003	51,671 gallons @ 1	0.66	14,395 No	276,739,502		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2001	EPACT-Cove Yes	No	No	Petroleum	Diesel	DSL	NS	E/ER	75	102 gallons	0.74	84 No	9,592,711.975		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2001	EPACT-Cove Yes	No	No	Petroleum	Gasoline	GAS	NS	E/ER	3524	3,524 gallons	1.147	46,820 No	33,551,245		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2001	EPACT-Cove Yes	No	No	Petroleum	Diesel	DSL	NS	E/ER	1582	1,582 gallons	1.147	2,392 No	13,868,960.26		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2001	EPACT-Cove Yes	No	No	Petroleum	Gasoline	GAS	NS	LE	60273	60,273 gallons	1	82,084 No	62,944,997.155		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2001	EPACT-Cove Yes	Yes	Yes	Petroleum	Diesel	DSL	NS	None	33,932	52,555 gallons	1.147	856,299 No	58,631,737.36		
NE	603	Chicago Office	Argonne West	2002	EPACT-Cove Yes	No	No	Petroleum	Diesel	DSL	NS	E/ER	1185	1,033 gallons	1.147	1,440 No	10,963,200.93		
NE	603	Chicago Office	Argonne West	2002	EPACT-Cove Yes	Yes	Yes	Petroleum	Gasoline	GAS	NS	None	1424	1,424 gallons	1	1,979 No	12,618,605.63		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2002	EPACT-Cove Yes	No	No	Alternative	CNG	CNG 3000	NS	None	13938	61,942 gallons at 3i	0.225	0 No	92,664,692		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2002	EPACT-Cove Yes	No	No	Alternative	CNG	CNG 3000	NS	None	22,876	102,442 gallons at 3i	0.27	37,720 No	184,929,384		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2002	EPACT-Cove Yes	No	No	Alternative	LNG	LNG	NS	None	215	415 gallons @ 1	0.66	15,096 No	1,000,468 No		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2002	EPACT-Cove Yes	No	No	Alternative	LPG	LPG	NS	None	415	415 gallons @ 1	0.74	33 No	9,592,711.975		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2002	EPACT-Cove Yes	No	No	Petroleum	Diesel	DSL	NS	E/ER	29,278	29,518 gallons	1.147	36,759 No	275,042,178		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2002	EPACT-Cove Yes	No	No	Petroleum	Gasoline	GAS	NS	LE	73941	73,941 gallons	1	99,940 No	64,744,082.9		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2002	EPACT-Cove Yes	Yes	Yes	Petroleum	Diesel	DSL	NS	None	55,609	49,484 gallons	1.147	687,736 No	591,317.43		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2002	EPACT-Cove Yes	Yes	Yes	Petroleum	Gasoline	GAS	NS	None	31,078	31,078 gallons	1	453,934 No	280,642,574		
NE	603	Chicago Office	Argonne West	2003	EPACT-Cove Yes	Yes	Yes	Petroleum	Diesel	DSL	ID	None	313	426 gallons	1.147	404 No	2,897,165.14		
NE	603	Chicago Office	Argonne West	2003	EPACT-Cove Yes	Yes	Yes	Petroleum	Gasoline	GAS	ID	None	426	426 gallons	1	691 No	3,774,480.93		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2003	EPACT-Cove Yes	No	No	Alternative	CNG	CNG 3000	ID	None	13,984	60,972 gallons at 3i	0.225	14,783 No	90,116,255		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2003	EPACT-Cove Yes	No	No	Alternative	CNG	CNG 3000	ID	None	17,739	29,971 gallons @ 2	0.66	12,636 No	117,889,626		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2003	EPACT-Cove Yes	No	No	Alternative	LNG	LNG	ID	None	1,739	29,971 gallons @ 2	0.66	12,636 No	117,889,626		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2003	EPACT-Cove Yes	No	No	Petroleum	Diesel	DSL	ID	None	2,9008	29,016 gallons	1.147	38,210 No	276,704,747		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2003	EPACT-Cove Yes	No	No	Petroleum	Gasoline	GAS	ID	E/ER	358	358 gallons	1	562 No	3,772,741.69		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2003	EPACT-Cove Yes	Yes	Yes	Petroleum	Diesel	DSL	ID	None	57,1898	49,803 gallons	1.147	658,111 No	529,937,738		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2003	EPACT-Cove Yes	Yes	Yes	Petroleum	Gasoline	GAS	ID	None	382,155	382,155 gallons	1	568,237 No	3,886,420,811		
NE	603	Chicago Office	Argonne West	2004	EPACT-Cove Yes	Yes	Yes	Petroleum	Diesel	DSL	ID	None	469	409 gallons	1.147	814 No	4,339,021.887		
NE	603	Chicago Office	Argonne West	2004	EPACT-Cove Yes	Yes	Yes	Petroleum	Gasoline	GAS	ID	None	233	233 gallons	1	463 No	2,064,701,624		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2004	EPACT-Cove Yes	No	No	Alternative	BiO-diesel	B20	ID	None	7214	6,007 gallons	1.126	16,222 No	53,404,143.5		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2004	EPACT-Cove Yes	No	No	Alternative	LNG	LNG	ID	None	1,739	29,971 gallons @ 2	0.66	12,636 No	117,889,626		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2004	EPACT-Cove Yes	No	No	Alternative	Diesel	DSL	ID	None	3,8654	58,042 gallons @ 2	0.66	48,092 No	244,489,255		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2004	EPACT-Cove Yes	No	No	Petroleum	Diesel	DSL	ID	None	0	0 gallons	1.126	0 Exempt	0		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2004	EPACT-Cove Yes	No	No	Petroleum	Diesel	DSL	ID	E/ER	4911	4,282 gallons	1.147	6,537 No	45,434,832.6		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2004	EPACT-Cove Yes	No	No	Petroleum	Gasoline	GAS	ID	LE	4157	4157 gallons	1	7,690 No	36,832,758.15		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2004	EPACT-Cove Yes	Yes	Yes	Petroleum	Diesel	B20	ID	None	28,855	25,626 gallons	1.126	64,889 Covered	213,662,546		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2004	EPACT-Cove Yes	Yes	Yes	Petroleum	Diesel	DSL	ID	None	53,9370	46,608 gallons	1.147	723,990 No	494,932,962		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2004	EPACT-Cove Yes	Yes	Yes	Petroleum	Diesel	DSL	ID	None	161	140 gallons	1.147	217 No	1,489,140,716		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2004	EPACT-Cove Yes	Yes	Yes	Petroleum	Gasoline	GAS	ID	None	38,5322	38,532 gallons	1	72,600 No	341,625,079		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2004	EPACT-Cove Yes	No	No	Alternative	BiO-diesel	B20	ID	None	4204	4,204 gallons	1.126	7,690 No	36,832,758.15		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2005	EPACT-Cove Yes	No	No	Alternative	CNG	CNG 3000	ID	None	4204	29,008 gallons at 3i	0.225	29,559 No	31,196,335		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2005	EPACT-Cove Yes	No	No	Alternative	E-85	E85	ID	None	10,945	14,672 gallons	0.72	47,421 No	14,013,811.39		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2005	EPACT-Cove Yes	No	No	Alternative	LNG	LNG	ID	None	37,147	56,284 gallons @ 1	0.66	66,411 No	246,433,198		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2005	EPACT-Cove Yes	No	No	Petroleum	Diesel	B20	ID	None	0	0 gallons	1.126	0 Exempt	0		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2005	EPACT-Cove Yes	No	No	Petroleum	Diesel	DSL	ID	E/ER	4,118	3,500 gallons	1.147	9,803 No	38,099,827.47		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2005	EPACT-Cove Yes	Yes	Yes	Petroleum	Gasoline	GAS	ID	None	44,093	44,093 gallons	1	98,813 No	390,724,842		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2005	EPACT-Cove Yes	Yes	Yes	Petroleum	Diesel	B20	ID	None	9,3559	8,557 gallons	1.126	238,382 Covered	713,321,254.7		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2005	EPACT-Cove Yes	Yes	Yes	Petroleum	Diesel	DSL	ID	None	31,035	31,035 gallons	1.147	3,000,468 No	474,339,136		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2005	EPACT-Cove Yes	Yes	Yes	Petroleum	Gasoline	GAS	ID	None	24,678	21,814 gallons	1.126	29,402 No	182,648,919		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2006	EPACT-Cove Yes	No	No	Alternative	BiO-diesel	B20	ID	None	12,332	14,930 hundred gal	0.83	36,338 No	32,068,28		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2006	EPACT-Cove Yes	No	No	Alternative	E-85	E85	ID	None	1,4841	2,880 gallons	0.72	84,287 No	22,068,824.73		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2006	EPACT-Cove Yes	No	No	Alternative	LNG	LNG	ID	None	37,196	56,572 gallons @ 1	0.66	118,035 No	246,758,064		
NE	602	Idaho Operatio	Idaho National Laboratory-HEA	2006	EPACT-Cove Yes	No	No	Alternative	LPG	LPG	ID	None	60	81 gallons	0.74	85 No	0,474,717.5		

Fleet Fuel (FAST Data)

Requirement(s): NECPA, EISA 2007, DOE O 4361.1, E.O. 13514

Instructions: This is an optional tab for FY 2012 GHG estimates of fleet fuel and fleet fuel goal performance. Enter information uploaded or to be uploaded into FAST for FY 2012 and select "Current FY" from the drop-down list in cell N4. If the information is not readily available, then select "Last FY" and the historical FAST data provided will be used as a placeholder for performance estimates.

Source: FAST All data reviewed, updated, and is correct for FY 2013 CEDR Report - Ernest Fostum 11/15/12

PSO	Site Num	Fleet Parent	Fleet Name	Report Year	Agency	EPA/Covered Agency	E/O-covered Fuel	Fuel Group	Fuel Name	Fuel Type	Fuel State Abbreviation	Vehicle Exemption	Fuel Amount	Fuel Consumption (GGE)	Fuel Consumption (NU)	Fuel Natural Units	Fuel GGE Conversion Factor	Fuel Cost (\$)	Diesel From E20	Anthropogenic MTC/yr
NE	604	Idaho Operatio	CWI	2010	EPACT-Cove	Yes	No	Alternative	E-85	E85	ID	None	No	21749	30207	gallons	0.72	83,134	No	29,0410376
NE	604	Idaho Operatio	CWI	2010	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	None	No	30218	26345	gallons	1.147	88,352	No	279,5682332
NE	604	Idaho Operatio	CWI	2010	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	WY	None	No	99	86	gallons	1.147	261	No	93,15912936
NE	604	Idaho Operatio	CWI	2010	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	ID	None	No	58303	58303	gallons	1	161,251	No	516,6405931
NE	604	Idaho Operatio	CWI	2010	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	UT	None	No	67	67	gallons	1	182	No	0,593712484
NE	604	Idaho Operatio	CWI	2010	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	WY	None	No	70	70	gallons	1	187	No	0,620296695
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2010	EPACT-Cove	Yes	No	Alternative	Bio-diesel	B20	ID	None	No	34501	30640	gallons	1.126	92,840	No	255,4021622
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2010	EPACT-Cove	Yes	No	Alternative	E-85	E85	ID	LE	No	7948	11039	gallons	0.72	28,795	No	0
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2010	EPACT-Cove	Yes	No	Alternative	E-85	E85	ID	None	No	81356	117994	gallons	0.72	294,747	No	108,6334102
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2010	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	ID	LE	No	695	695	gallons	1	1,765	No	0
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2010	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	None	No	138005	127552	gallons	1.126	371,951	Covered	1021,616952
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2010	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	None	No	442006	367921	gallons	1.147	1,114,399	No	3904,250044
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2010	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	ID	None	No	188271	188271	gallons	1	477,911	No	1684,309642
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2011	EPACT-Cove	Yes	No	Alternative	E-85	E85	ID	None	No	29326	41584	gallons	0.72	126,007	No	39,9397355
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2011	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	None	No	91832	81817	gallons	1.147	237,072	No	85,1672765
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2011	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	ID	None	No	94032	89936	gallons	1	327,211	No	895,6520463
NE	604	Idaho Operatio	CWI	2011	EPACT-Cove	Yes	No	Alternative	E-85	E85	ID	None	No	28823	40033	gallons	0.72	127,154	No	38,4862067
NE	604	Idaho Operatio	CWI	2011	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	None	No	36866	26754	gallons	1.147	93,703	No	283,8862518
NE	604	Idaho Operatio	CWI	2011	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	CO	None	No	23	23	gallons	1	83	No	0,203811748
NE	604	Idaho Operatio	CWI	2011	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	UT	None	No	57706	57706	gallons	1	188,202	No	511,3548151
NE	604	Idaho Operatio	CWI	2011	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	WY	None	No	17	17	gallons	1	61	No	0,150643465
NE	604	Idaho Operatio	CWI	2011	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	WY	None	No	43	43	gallons	1	161	No	0,381039355
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2011	EPACT-Cove	Yes	No	Alternative	Bio-diesel	B20	ID	None	No	26238	36581	gallons	1.126	263,684	No	549,7956598
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2011	EPACT-Cove	Yes	No	Alternative	E-85	E85	ID	LE	No	77508	107651	gallons	0.72	327,543	No	103,4952352
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2011	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	ID	LE	No	58583	58583	gallons	1	179,204	No	0
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2011	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	None	No	297176	283924	gallons	1.126	1,054,737	Covered	2199,9186339
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2011	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	None	No	256470	226218	gallons	1.147	788,972	No	2400,52454
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2011	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	ID	None	No	112333	112333	gallons	1	343,989	No	995,52454
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2012	EPACT-Cove	Yes	No	Alternative	E-85	E85	ID	None	No	19234	26715	gallons	0.72	94,273	No	25,68246311
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2012	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	None	No	8304	7241	gallons	1.147	25,840	No	76,89566685
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2012	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	ID	None	No	91520	91520	gallons	1	314,212	No	810,9935305
NE	604	Idaho Operatio	CWI	2012	EPACT-Cove	Yes	No	Alternative	E-85	E85	ID	None	No	28342	39354	gallons	0.72	134,110	No	37,84463483
NE	604	Idaho Operatio	CWI	2012	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	None	No	20778	18116	gallons	1.147	66,470	No	192,2306967
NE	604	Idaho Operatio	CWI	2012	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	CO	None	No	22	22	gallons	1	80	No	0,134950368
NE	604	Idaho Operatio	CWI	2012	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	ID	None	No	42402	42402	gallons	1	144,139	No	375,74095
NE	604	Idaho Operatio	CWI	2012	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	UT	None	No	142	142	gallons	1	475	No	1,258316011
NE	604	Idaho Operatio	CWI	2012	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	WY	None	No	39	39	gallons	1	142	No	0,345593884
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2012	EPACT-Cove	Yes	No	Alternative	Bio-diesel	B20	ID	None	No	84223	73186	gallons	1.126	345,023	No	610,150679
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2012	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	None	No	32693	292745	gallons	1.126	1,396,080	Covered	2440,652271
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2012	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	LE	No	3	2	gallons	1.126	0	No	0
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2012	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	None	No	10	9	gallons	1.126	0	No	0
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2012	EPACT-Cove	Yes	No	Alternative	E-85	E85	ID	None	No	64340	88247	gallons	0.72	292,149	No	86,9323381
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2012	EPACT-Cove	Yes	No	Alternative	E-85	E85	ID	None	No	17444	17444	gallons	1	57,293	No	172,6736
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2012	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	None	No	153697	138922	gallons	1.147	506,243	No	1421,950207
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2012	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	ID	LE	No	1236	1026	gallons	1.147	4,059	No	0
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2012	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	ID	None	No	101180	101180	gallons	1	330,757	No	886,5944648
NE	602	Idaho Operatio	Idaho National Laboratory-BEA	2012	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	ID	LE	No	66753	66753	gallons	1	218,233	No	0

